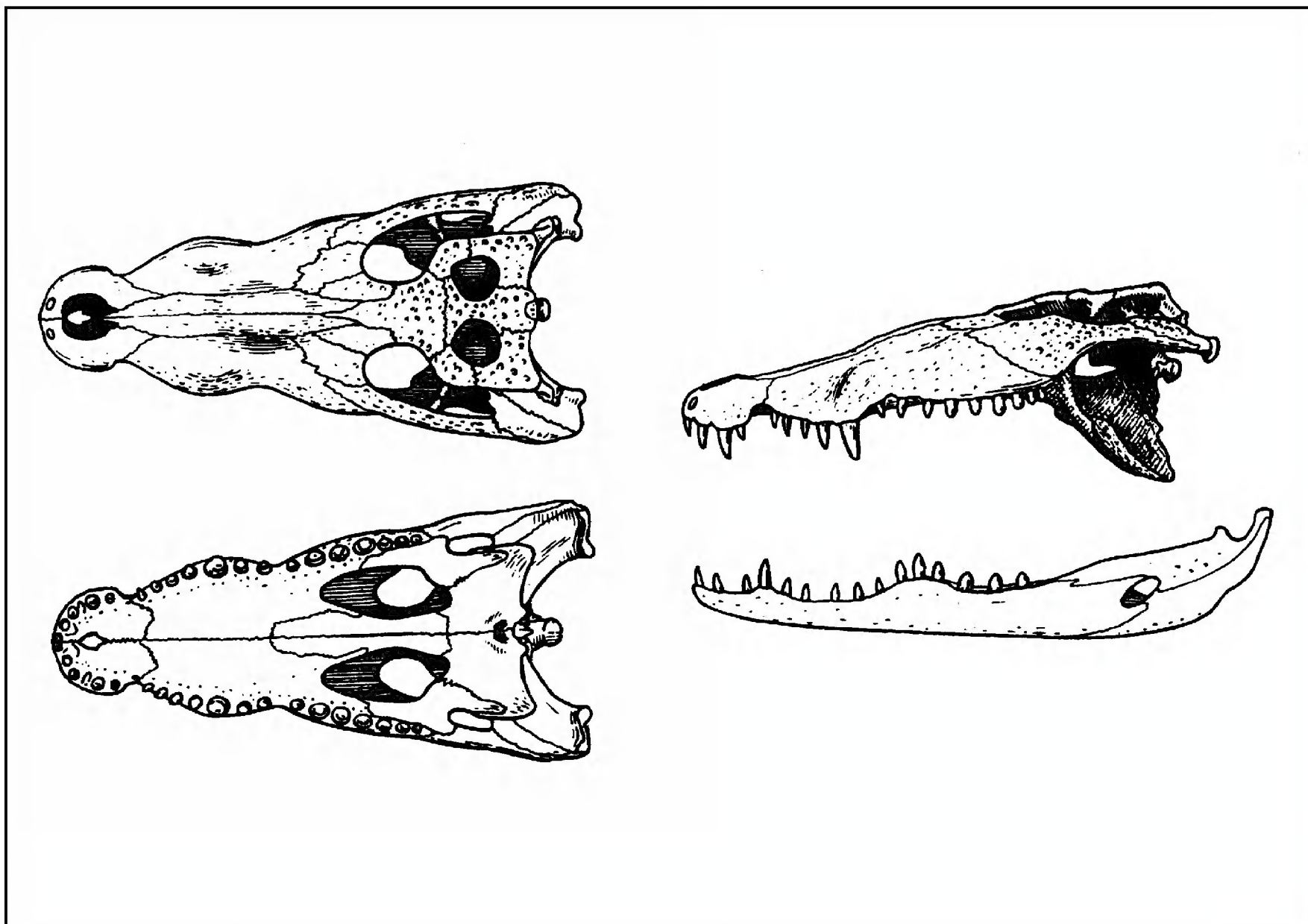

BULLETIN

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Chicago Herpetological Society



Volume 38, Number 8
August 2003



BULLETIN OF THE CHICAGO HERPETOLOGICAL SOCIETY

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**Book Review: *Amphibians and Reptiles of Baja California, Including Its Pacific Islands and the Islands in the Sea of Cortés* by L. Lee Grismer
2002. xiii + 399 pp. Berkeley, Los Angeles, London: University of California Press.
ISBN 0-520-22417-5. Hardbound. \$95.00***

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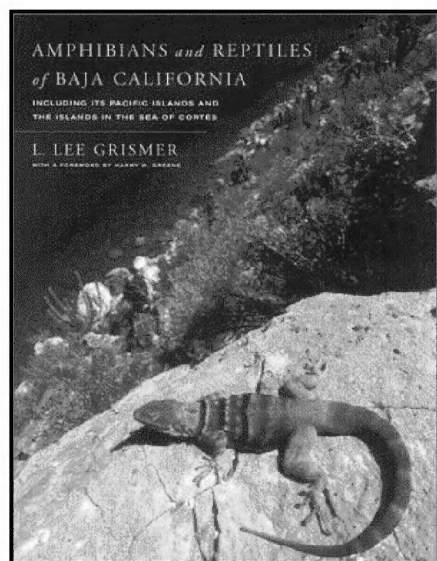
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Imagine a finger of land 1000 miles long jutting out into the Pacific Ocean, and surrounded on all sides by turquoise waters and sprinkled with islands like jewels. One's imagination need not wander too far, since such a place does exist as Baja California, México. The long peninsula and adjacent islands that make up Baja comprise an incredibly varied landscape

with numerous habitat types, beginning in the north as chaparral and desert biomes, transitioning into one of only two fog deserts found on earth, and ending in the cape region's subtropical forest. Both within and between these varied habitats are immense mountain ranges, some exceeding 10,000 feet in elevation. Islands situated on either side of the peninsula harbor a flora and fauna that rivals or even exceeds the Galapagos Islands in evolutionary diversity. For well over a century, naturalists have sought to unravel the mysteries of this remote peninsula, and tell the story of its amazingly diverse herpetofauna. The remoteness and difficulties of traveling into the heart of Baja limited efforts directed at understanding its natural resources, and thus it has historically been under sampled as compared to adjacent areas of North America.

One contemporary naturalist who has dedicated a significant portion of his career to understanding the herpetofauna of this region is Lee Grismer, who recently authored *Amphibians and Reptiles of Baja California: Including its Pacific Islands and the Islands in the Sea of Cortés*. Since well before the completion of his 685-page doctoral dissertation, Grismer was collecting information on the herpetofauna of Baja. Over 25 years of detailed research are summed up in this wonderful exposé on the identification, natural history, and evolution of the herpetofauna occurring in this region.

The book begins with a thorough overview of the natural history of the Baja peninsula. Paleoenvironmental history, physical characteristics, climate and phytogeographic provinces are discussed, and provide an appropriate backdrop to the subsequent species accounts. Exceptional photographs and maps of the various regions contribute significantly to the introduction. Several useful maps of Baja, as well as three tables are also included. These tables provide information on



faunal relationships of Baja herpetofauna with respect to mainland México and the United States, illustrating historical biogeographic complexes for each species, and their ecological associations.

The last section in the introduction includes a small, but notable entry entitled "Conservation and Commercialization." Here, Grismer cites numerous examples of how the more desirable and/or charismatic species have succumbed to collecting pressure from the pet trade. Habitat destruction is also cited from throughout Baja, with such impacts resulting in deleterious effects that are poorly quantified and understood.

The species accounts constitute the majority of the text, and Grismer provides introductory sections to explain the arrangement and use of these accounts, the taxonomic principles adhered to in the book, and a taxonomic key. Considering the numerous species concepts in practice, and considering that many in the herpetological community will have this volume on their reading list, Grismer does well to provide a logical taxonomic basis for recognition and treatment of the respective species covered in the book. Indeed, Grismer has spent a considerable amount of time testing and defining species concepts through his studies on the herpetofauna of Baja. Most notable is Grismer's statement avoiding formal recognition of subspecies. Subspecies designations throughout the book are referred to as pattern classes in the same manner as "Frost (1995)," which is not listed in the Literature Cited, and was probably intended to reference Frost's (1985) treatment of subspecies as pattern classes. The introduction to the species accounts is followed by a taxonomic key, which includes all native, and many nonnative species occurring in Baja and adjacent islands. This is an extremely useful tool for anyone trying to identify the herpetofauna from this region.

The species accounts are arranged in taxonomic sequence as follows: salamanders, frogs and toads, turtles and tortoises, lizards, worm lizards, and snakes. Within each respective taxonomic section, genera are listed alphabetically within each designated family, and species "are treated in phylogenetic order where possible." Each species account includes a description and information on identification, taxonomy, distribution, and natural history. Some species receive additional treatment with respect to geographic variation, miscellaneous information on conservation, commercial exploitation, anomalous distributional patterns, and folklore and human use both past and present.

The accounts present detailed information for each species. A generic overview for each species is provided. Type localities and collectors, along with date of collection and the museum where each species is housed are given. "Identification" provides detailed information for properly keying out each species. "Relationships and Taxonomy" provides citations on the seminal literature addressing current understandings of these topics for each species. "Distribution" is both explained and portrayed in the accompanying maps that illustrate circumscribed distributions for each species. The accuracy of each circumscribed range is excellent for the most part, and Grismer clearly spent a great deal of time delineating the maps to exhibit the greatest accuracy. However, many of the maps include areas where no records for the respective species exist. While the quality of the maps is excellent, the circumscribed distribution provided for each species fails to illustrate the variation in habitats and lack of distributional records for most, if not all, of the species described. A dot-distribution map would have been far more desirable considering the paucity of collecting localities for many of the species. Mapping accuracy and interpretation are important since neither the species nor their habitats are uniform in distribution. The final section of the "Species Accounts" includes a description of the species throughout its range, and in some cases is followed by a section on "Geographic Variation" that discusses wide-ranging and/or insular species. A section on "Natural History" adds considerable depth to each species account, illustrating in some cases the paucity of information available for many of the species. A final section includes "Remarks" by Grismer, and a section on "Folklore and Human Use."

Two nonnative species known from Baja were not included in the accounts. The African clawed frog (*Xenopus laevis*) is well known the Tijuana River. Tinsley and McCoid (1996) indicated that this species might occur in the municipality of Tijuana, and Stebbins (1985) showed them to occur there as well. Also, Mahrtdt et al. (in press) describe a record of *Xenopus laevis* from a tributary of the Tijuana River, but well south and upstream of the city of Tijuana. The Mediterranean gecko (*Hemidactylus turcicus*) is known to occur in Ensenada (Martí-

nez-Isac and Valdés-Villavicencio, 2000) but was not included in the species accounts.

Following the species accounts are two appendices: 1) a checklist of the insular species, and 2) a Spanish translation of the taxonomic keys presented on pages 45–53. Both of these appendices are extremely useful. For those people working or traveling within Baja's islands, Grismer has provided information on what is currently known for each insular species. This is especially important given that some islands likely harbor as-yet unrecorded species. The Spanish translation of the taxonomic keys and checklist provides important information to those who call Baja their home, and to the people of many other Spanish-speaking countries. This excellent inclusion will facilitate the use of this book within México.

A useful "Glossary" that defines many of the biological terms used in the text is included. Anatomical terms used in the "Identification" section are defined. Comprehensive "Literature Cited" and "Index" sections round out this book.

The book is somewhat lacking on management and conservation perspectives for each species and their habitats within Baja. The city of Tijuana, which borders San Diego, California, is one of the fastest growing cities in México. Vast areas of land within Baja are being converted for agricultural and other uses, and aquifers are feeding a growing thirst for water in this developing region. These impacts, along with an aggressive federal campaign to develop more infrastructure and attract more tourists to the Sea of Cortés, indicate that the natural areas on this remote peninsula may not remain remote or undisturbed for much longer. Wise decisions on land use and sustainability need to be made in order to avoid catastrophic losses to the biodiversity of this region. More detailed information on this subject with respect to the herpetofauna would have been useful.

Overall, this book summarizes and amazing amount of work in a single volume on the herpetofauna of this diverse region. I highly recommend this book to herpetologists, naturalists and interested amateurs alike.

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Observations by Berlandier 1827–1834 on the Crocodilians of Texas and Northeastern Mexico

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Abstract

The account written by Jean Louis Berlandier of his travels as a biological collector and general scientist in Texas and northeastern Mexico, in 1827–1834, contains numerous references to the crocodilians of those areas. Those references are summarized here as a basis for comparison of distribution, abundance and understanding of these animals, as recorded nearly 175 years ago, with knowledge at the present time.

Introduction

A promising young Frenchman, Jean Louis Berlandier (?1803-1851), was hired by a famed Geneva botanist, A. P. de Candolle, to accompany a French/Mexican Boundary Exploration Commission, operating 1826–1829, as a collector, mostly of plants, for de Candolle's study. At that time the search for new species of plants was feverish and highly competitive as authorities vied with each other in reporting new such discoveries. Berlandier was an accomplished botanist himself, but had catholic scientific interests and knowledge that led him to do much more than collect plants.

The Boundary Commission's travels covered a good deal more than the boundaries of Mexico and Texas, extending northward from as far south as Cuernavaca, Morelos, to near Eagle Pass, Texas, and from Tuxpan, Veracruz, northward into southern and eastern Texas. Although the Commission's work ended in 1829, Berlandier remained in Mexico and lived the rest of his life in Matamoros, Tamaulipas.

An almost unbelievably prodigious writer, Berlandier wrote among many other manuscripts a 1500-page account, in French, now in the Library of Congress, "*Voyage au Mexique par Louis Berlandier pendant les années 1826 à 1834.*" That manuscript described in detail his travels during those years in Mexico and Texas, and had copious botanical information that led to a translation and commentary (Berlandier, 1980) through the collaboration of the translators (S. M. Ohlendorf, J. M. Bigelow and M. M. Standifer) and commentators (C. H. Muller and K. K. Muller). The following notes are based on that work.

The narrative includes notes on much besides botany, although that was clearly the emphasis. Numerous reptiles and amphibians were mentioned, and among them crocodilians received more attention than any other group. We here review the comments pertaining to those animals.

For the most part, our citations from the 1980 work are in chronological order, and the pages from which they were taken are cited for each. As it happens, the Texas observations came later in the journal than the Mexican ones, with but one exception of late Mexican observations. Therefore we have divided the following account into two parts, Mexican and Texan.

That division is useful also because all Mexican references to "caimans" pertain to *Crocodylus moreletii* (except for hear-

say accounts of *Crocodylus acutus* in regions that Berlandier did not visit), and all Texan references pertain to *Alligator mississippiensis*. Berlandier referred to all as "caimans," but he realized in due time that the animals he observed were of two species, as indicated in his comments under p. 337. Even in his manuscript on the herps of Matamoros and vicinity (Chiszar et al., 2003; Smith et al., in prep.) he had not properly identified either species, and did not clearly distinguish them.

The following text is paraphrased except where quotation marks are used.

Mexico

P. 18. Caimans were "very numerous" in the Río Pánuco, and "especially in the small lakes bordering it."

P. 26. Caimans were among the many animals that died when the shallow, brackish Laguna del Carpintero (circumference 6 or 7 miles), immediately north of Tampico, dried out.

P. 34. "Among the reptiles [of the region of Pánuco] I shall speak only of the caimans. These amphibians [so-called in reference to their habits, not their classification], which acquire with age such monstrous dimensions, are less at home in the saline lakes than in the rivers. They are very common in the Pánuco and in the Tamesi. They are so voracious at Tampico that several misfortunes which they have caused can be cited. Men, women, and children have been victims of these reptiles. Continually lurking, they spy on the dogs that come to drink and devour them, and I have seen them throw themselves on wounded or dead game that had fallen in the water, although we were very close by. I shall also say that, the pirogue in which we traversed the Laguna del Carpintero having sunk, we recrossed that lake with the water just under our arms or at our waists; yet those caimans which we encountered fled before us, and not one which we could see assumed an offensive attitude."

P. 45. On the Laguna and Río Tamiahua, northern Veracruz, "caimans (lagartos) are so numerous on the shores that at the appearance of a pirogue one sees these startled animals, which had been snoozing in the sun, everywhere flinging themselves into the ooze." This is the only place in Berlandier's journal in which the word lagarto appears. It may reflect his dim awareness that the "caimans" of Mexico and Texas are different species.

P. 53. “Numerous caimans” on the Río de Tuxpan, Veracruz, “launch themselves with a large splash into the deep at the slightest sound.”

P. 64. In traveling along the coast from Tampico to Tuxpan, Veracruz, Berlandier observed that “In certain localities around the lakes of the coast, game wounded or killed in the marshes is often as swiftly seized upon by the caiman as by him who killed it.”

P. 493. Somewhere between Ocampo and Gonzalez, Tamaulipas, the party found, in a mudhole alongside the road, a freshly killed caiman, “whose tracks showed us that it had emerged from a swamp. That chance discovery proved to us that these reptiles are found not far from the foot of the cordillera.”

Texas

P. 268. “The caiman — which is found in all the rivers of Mexico from the frontier of Guatemala to the borders of Louisiana — does not exist at all in the Río Bravo del Norte, although it abounds in the Río Soto la Marina to the south and in the Nueces to the north. I do not know to what to attribute that circumstance, which I mention because I thought it extraordinary.” An editorial footnote correctly identified the “caimans” of Texas as *Alligator mississippiensis*, but erroneously assigned the Mexican ones to *Caiman sclerops*. Instead they are *Crocodylus moreletii*. The Río Soto la Marina is approximately the northernmost limit of the species.

P. 305. Referring to the San Marcos River of Texas, Berlandier stated that “Many fish and caimans are found there.”

P. 307. A caiman was shot in a pond of stagnant water some distance east of Gonzalez.

P. 322. North of San Felipe, following a route east of the Brazos River, the party encountered a swamp of “fetid odor”, where “On all sides we heard the so-called snoring of the caimans, who came to sleep in the water. They were soon roused from that lethargy, however, by barking which resembled that of a swimming dog. They were then seen to be uneasy, searching with avid eyes for the prey which they thought that they had heard. Despite the presence of those ferocious animals, our boatmen bathed there.” Berlandier obviously was unaware that the “snoring” sounds actually were mating calls.

Pp. 336-8. In a swampy area near the Brazos River, a little south of Navasota, Berlandier noticed: “In the midst of the undergrowth, which the flood had covered, one could see many young caimans about one to two feet long. That reptile is common in almost every river and pool in Texas and Louisiana down to the Nueces River, where the existence of these animals ceases. I know that there are some reptiles of that kind in the Río Soto la Marina and the Río Pánuco, but I believe that the species in Texas is different. Its inclinations, its habits, are all much less ferocious than among those species found in the hot countries. Likewise, I have been assured that it never attacks people in the United States of America, but that dogs are a very great delicacy to it. It is enough to imitate the plaintive cry which dogs emit when they have swum for a

long time to see all the caimans in a pool come and go, become aroused, and seek everywhere for what they thought they had heard. In the southern states of the Republic of Mexico, and especially in the Río de Coatzacoalcos, a species of caiman [*Crocodylus acutus*] abounds, and several people have been that savage animal’s prey. The Indians of that area assert that it does not attack man except under certain circumstances. They even assert that they can recognize the reptile that has eaten human flesh. Each time that some misfortune has occurred, everyone goes in search of the murderer, for, based on experience, they say that as soon as it has seized one man it seeks to seize others. Its uneasy and active air sufficiently betrays its inclination, and they kill it. Ordinarily those animals are sprawled on the surface of the water with only their nostrils protruding above so that they can breathe, and they thus remain still for a long time, or move gently and noiselessly in search of prey. On the banks of the Pánuco they have been seen to devour the women who go there to wash their corn. If they lie in the sun during hot weather, they look like dead bodies, moving only to flee under the water or to launch themselves on their prey, which they almost always wait for with open mouth.

“Hunting of the caiman is done in different ways according to the locality. The Americans kill it with a carbine wherever they find it. The creoles of the Pánuco put a lure on a sharp, two-pointed dart, which is hidden by the bait. Avid for flesh, the caimans throw themselves on it, and when it is embedded in both jaws they are promptly hauled out of the water by means of the cord whose end the natives hold. These same inhabitants, however, are more accustomed to go and lasso them, asleep in the lakes or on the beaches, where they are captured alive. Often they have brought to me some thus caught, which I have kept for a long time full of life and health, though they refused all food and sought only to return to the water. On the southern coast of the Gulf of Mexico the Indians are foolhardy enough to seek and attack them in the rivers they inhabit. A single native throws himself into the Río de Coatzacoalcos armed with a sharp, two-pointed instrument. He situates himself in front of the caiman and, when the latter opens its large mouth to seize him, he places his weapon perpendicularly in such a way that, on closing the mouth, the animal itself pierces both jaws and the native escapes, having at hand the end of the cord to which the dart had been attached. The reptile becomes desperate, struggles, and soon succumbs to its wound, or else is so well pierced that it can be guided to the beach.”

There is no evidence that Berlandier had visited the Río Coatzacoalcos area by the time that the translated narrative was written. He apparently recited folklore.

P. 340. Between the Colorado and San Marcos Rivers Berlandier complained that “in all the places frequented as camping grounds, one find only stagnant water in ponds infested with caimans and other aquatic animals.”

P. 381. In the vicinity of the mission of Refugio, some 36 miles south of what is now Goliad, and south to Copano Bay, the Karankawa Indians caught caimans for food when fish or turtles were not available.

P. 570. Lake Espantosa, or Dread Lake, near the Nueces River northeast of Laredo, was periodically flooded from the overflowing river, its waters spreading widely over the lowlands. “It is at that season that one sees numerous caimans, which arrive to roam the newly formed swamps.”

Remarks

Although Berlandier was an excellent observer, he curiously knew nothing of the reproductive behavior of crocodilians. This deficiency can be attributed to the fact that he was always

on the move when he was within the ranges of the two species he encountered. As he recorded, neither occurred anywhere near his center of operations.

The distributional information on both the alligator and crocodile is nevertheless of considerable importance in comparison with the knowledge today. Of special interest is his repeated statement that the alligator did not occur in the lower Rio Grande Valley, and not south of the Nueces River. There is a paucity of records in that area, depicted in Ross and Ernst’s map (1994), suggesting some validity in Berlandier’s concepts.

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Bull. Chicago Herp. Soc. 38(8):157-165, 2003

Editor’s note: Much of the scientific nomenclature that Mr. Hoser uses in the article below, as he makes abundantly clear, is not universally accepted. The reader is encouraged to examine Mr. Hoser’s taxonomic papers, which are referenced herein and all of which can be downloaded from www.smuggled.com. For an opposing view, see {Wüster et al. 2001. Taxonomic contributions in the ‘amateur’ literature: Comments on recent descriptions of new genera and species by Raymond Hoser. Litteratura Serpentina 21(3):67-79, 86-91}. This critique (in the form of the manuscript that was submitted) can be downloaded from <http://biology.bangor.ac.uk/~bss166/Updates/Elapidae1998.htm>.

The Australian Herp Scene as of Early 2003—Part I

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From Rare to less Rare

This entire article was written as of end 2002, early 2003, so the following is more or less current for that date, even if you read it in several parts and some time after the above date. Now unless you’ve been living in a cave or on Mars, you’d be familiar with the major downs and ups at the Australian Reptile Park just north of Sydney.

That includes the world’s first breeding of rough-scaled pythons (*Morelia carinata*). But more on that one shortly. The story starts a few years ago, when they moved their entire facility from the old spot just north of Gosford (Wyoming) to a better spot just south of Gosford (Somersby). The new spot was better because it was closer to the main market, namely Sydney, and effectively on the main road there.

The old Park was built on the main highway as well, but about two or three decades ago, a new highway was built that effectively bypassed the park and the road took most of the business with it. So the move by the Australian Reptile Park was a bold one, but it had to be done if the park was to remain

a viable concern.

At the time of the move, it was touted as the first time that a zoo in Australia had moved. That wasn’t really the truth . . . although most of the media bought it. Anyone who’s read *Smuggled* would know that Sydney’s main zoo (now known as Taronga) made a few moves before it came to rest at its current Mosman site. But that was all so long ago, few people would remember this anyway. Other Australian zoos have changed location as well, but I won’t start listing them here.

But let’s not underestimate what John Weigel, then manager Rob Porter, and their crew did when they packed up and moved shop about 10–20 km down the road. Carting loads of snakes, crocodiles, kangaroos, other mammals, birds, cages and the like is never easy, especially on the scale of what they had to do. If you are not from Australia and land in Sydney for a holiday, the Australian Reptile Park is definitely worth checking out.

Now as for the rough-scaled pythons, the story of them began many years back—the early 1980s in fact. You see, it

was about then that Laurie Smith of the Western Australia Museum described the species from an animal taken some time earlier by a museum collecting expedition in Australia's north-west. As it happened, the snake had been known for quite some time before Smith finally got around to publishing his description. However the WA Wildlife department, otherwise known as CALM, had been so tough on issuing collect permits for the snakes that no one was ever allowed to collect any.

Weigel and others went to the area looking for the snakes and evidently had no trouble finding them. After all they are just a weird-looking carpet snake, and like all in the genus *Morelia*, seem to be reasonably common in undisturbed habitat where they occur.

However, as I already said, no one was allowed to collect the animals. Were they under threat from collectors? No way! But since when has that made a difference to the bloody-minded bureaucrats here in Australia who just love to enforce rules, rules and more rules against everyone (except themselves).

But after years of intense lobbying by Weigel and continued embarrassment of the department's officials through government inquiry after inquiry that highlighted the errors of CALM's ways, the department finally buckled under the pressure and allowed Weigel to be the first to legally obtain some of the snakes to bring into captivity.

Now John Weigel's no slouch at these sorts of things and it didn't take him long to get about four of them back to NSW to try to breed them.

Then at about 12:30 A.M. on Sunday, 16 July 2000, the brand new Australian Reptile Park burnt to the ground. News reports said the fire was caused by an electrical fault. The main building which housed virtually all the 500-odd reptiles was wiped from the face of the earth — taking all the reptiles inside with it.

For the Reptile Park owners it was particularly bad. Losing the park just weeks before the Olympics tourist surge was bad enough. Losing the reptiles as well made it a double whammy. Particularly when the authorities here make it so hard for people to obtain reptiles legally. However the Reptile Park people had a few bits of luck on their side and they worked well with what they had.

Firstly the rough-scaled pythons were being housed at John Weigel's private home, not at the park. That was meant to be a secret (for security reasons), but it soon became apparent after the fire, when everyone started to ask about the pythons. After all, they were the most notable reptiles they had. This meant that the attempted breeding program could continue.

The park was insured, which meant that rebuilding the million dollar facility was a mere formality. Weigel, Porter and the crew seized on the opportunity to iron out minor defects in the original set-up as they rebuilt it.

And then there were the reptiles. Local private keepers offered the park more than they needed to get re-established. Even the NSW National Parks and Wildlife Service, usually a major headache, actually did the right thing for a change and

allowed the Reptile Park people to recapture a few specimens that they needed.

Of course the fact that the Reptile Park is a well-known tourist, educational and venom supply facility certainly helped. The department was wise not to get into a public brawl by going slow on issuing permits.

It was a bit over a year after they legally caught the snakes before Weigel and company got their first rough-scaled python eggs hatching (on or about 2 January 2001). I think they were incubating about eight of them — but my number could be wrong, so stay tuned for a paper to be published on this by Weigel at some later stage. Then you'll get the exact details.

And yes, it was probably the most widely publicized herp breeding in this country's history. What did the young snakes look like? Baby carpets of course, and with a similar pattern to the parents. And what are these snakes most like? In my view, Bredl's pythons (*Morelia bredli*).

But the rough-scaled python breeding wasn't the only success here in Australia in the summer of 2000–2001 (remember our seasons are opposite to the Northern Hemisphere). Tim Mensforth (of Ultimate Reptiles fame) cranked out a load of baby green pythons (*Chondropython viridis*) and so too did Brian Barnett and a fellow herper working as another team.

A similar pattern happened the next summer and so for the first time in a long time (actually the first time ever in Australia), there are starting to be quite a few green pythons in captivity here. No doubt that upset a few wildlife bureaucrats who seem to have embarked on a ruthless campaign to eliminate the species from captive collections here.

What did that all mean. Snakes that should be available for a few hundred dollars instead cost many thousands . . . oh and yes, there's a steady flow of them being smuggled in from Europe, New Guinea, the USA or anywhere else that people here can get them.

Why are they coming in? It's the cheapest way for people to get them. What's my view of green pythons? My advice is stick to carpets. They're not as snappy. I reckon that if green pythons weren't green and they were more readily available in the pet trade, few people here in Australia would want them. Is that likely to happen in the near future? No.

No Chondros

Bob Buckley's war with the Queensland NPWS and John O'Shea in particular remains an ongoing saga. The early parts of the battle were covered in *Smuggled-2*, are probably known to most readers and are not repeated here. The saga began in 1994 with the "Operation Birdman" raids on Buckley's home, which led to the initial seizure of his green pythons.

In September 1999, Buckley was convicted in Herberton Court on charges of having tainted (illegally obtained) snakes. DNA evidence given by the department and scientists it employed led to the magistrate declaring that the snakes allegedly bred by Buckley had in fact been derived from other (probably wild) sources. The basis of the finding was that the DNA

evidence indicated that the snakes had four different parents instead of one, as would have been the case if Buckley had bred them (as he claimed).

Buckley was fined \$10,700, and sentenced to 21 weeks jail (with 18 suspended for two years). He also had to repay \$47,000 in “profits” from 11 snakes he’d sold to breeders in other states. The case was the first time in Queensland’s history that someone had been jailed for a fauna offense.

Buckley’s lawyers said that Buckley denied the allegations against him and had commenced an appeal. They said that the DNA evidence was not convincing and that it was so vague that the “expert witness” had been unable to identify conclusively whether the snakes had derived from Australia or New Guinea. The lawyers also said that the magistrate had evidently made up his mind to convict Buckley before he’d heard a single word of evidence.

There was another appeal and this time Buckley won. As a result of his immense financial losses through the affair he’s now taking legal action against the Queensland National Parks and Wildlife Service (QNPWS) seeking financial compensation (damages).

But . . .

While talking chondros, the snakes have been illegally imported into Australia in their hundreds over recent years. And yes, most have come in through the postal system. They sell on the local black market for about \$1–2 thousand dollars each or \$5,000 “with paper.” Most unlicensed specimens are held in NSW, which isn’t surprising given that the state is Australia’s most populous.

Less Pythons

Here’s a story that the newspapers got completely wrong. It was in the summer of 1999 that the Melbourne media reported on a case where several bags of live reptiles, including water pythons (*Katrinus fuscus*) were found on the side of a road near Bendigo, an hour’s drive north of Melbourne. A passerby had seen the bags move as he drove past and he called the local police and wildlife officers. The newspaper story said that police were looking for a person who had illegally “dumped” the snakes by the road and left them to die in the summer heat.

But I knew the real story immediately. Let me ask you one simple question. Why would someone in Victoria drive 4,000 km north of their home to illegally capture a load of snakes simply to come home and dump them on the side of the road? Can’t answer the question? Nor can I.

It was obvious that someone had gone north to capture the snakes and then on the way home they’d stopped their car for a rest-break or similar. Due to the heat, they’d taken the snakes out of the car and stored them underneath it while the car was parked. Then when they got back in and drove off, they’d forgotten about the snakes. By the time they’d realized that they’d left the snakes behind, some hours had probably elapsed and by then the people had probably decided that they wouldn’t

go back for the snakes because they’d now all be dead.

How did I work this one out? Easy. You see ten years earlier a mate of mine in Sydney had a similar experience. He went on a tortoise hunting trip in the rivers of Queensland and far north New South Wales. He caught heaps. At Grafton, NSW, my friend and his companion stopped by the side of the road and took a stroll. The bags with the tortoises were placed under the car to keep them cool. And yes, they forgot their animals when they drove off, only to return an hour later to find all of them roasted in the sunlight.

Returning to the Bendigo case, there was just one survivor. That was a water python. The snake was called “Lucky.” Oh, and the only part of the story I got wrong was the bit about the men not going back for their snakes. They did. The only problem was, that by the time they got to where they’d left the snakes the area was swarming with police and other officials, so they simply decided to drive past.

Were they upset? Of course they were. They’d just spent one month and several thousand dollars on a collecting trip and after all that got nothing. Then again, had they been busted for collecting the animals and/or had them seized by officials later on, their losses may have even been greater.

Even More Pythons

Many readers of this magazine are aware of my recent python reclassification as published in Issue One of *Ophidia Review*. There’s actually two aspects of this. First is the taxonomy: that’s deciding what forms are species, subspecies and the like. At the species and subspecies level, most people seem to think I got it right. (For those who disagree with my taxonomy: my advice—keep disagreeing. Science is full of dissent and I reserve the right to also change my view at a later stage as well! Furthermore taxonomy, at the higher [non-species] levels especially, involves so-called value judgments and therefore will always contain differing views—even if people are confronted with identical facts).

At the generic level, there is quite a bit of dissent with regards to my papers. I was a “Splitter,” in that I effectively carved up the genera into smaller more discreet groups. “Lumpers” of which I am not in this case, prefer to stick them all in one group, (like merge *Liasis*, *Antaresia*, *Chondropython*, *Leiopython* and the like into one group such as *Morelia*). That’s what Storr, Smith and Johnstone did in their book *Snakes of Western Australia*, published in 1986, when everything bar *Aspidites* was called *Morelia*.

For me that was simply untenable so I split the snakes into smaller groups (or genera), most of which already had names (like *Liasis*, *Antaresia* and the like). Most of the splitters liked what I did and the lumpers hated it. But then again, you can never please everyone on these things.

Second is the nomenclature—what I named the snakes. Now most already had names, so I didn’t assign (or “coin”) all that many. One, for example, was “*Morelia harrisoni*” for the New Guinea carpet snake. And of course that’s where the mud starts to fly, although most lay people seem unable to tell

the difference between taxonomy and nomenclature.

But I'll give you a humorous example. Within days of the paper being in circulation I got a phone call from a bureaucrat. He told me what he thought. "Your taxonomy's up the [expletive deleted]." I asked him why. He said, "How dare you name a snake *Aspidites melanocephalus davieii*?" I asked him what was wrong with that, to which he said, "But he's a dead [expletive deleted]. He always gives us hell!" Okay, so I knew that he didn't know the difference between taxonomy and nomenclature, but I had to laugh anyway. You see, Neil Davie, the bloke whom I named the snake after, gave a few bureaucrats hell over their anti-conservation actions and policies. No wonder the bureaucrat hated seeing his adversary having a snake named after him. Such is life in the world of herp politics. I couldn't win.

Another friend had a whinge at me and told me that my taxonomy was stuffed. I asked him why to which he said, "You've named a snake after your [expletive deleted] dog, but never named one after me." My question was as follows: "Okay, so what name would you have chosen: Steve Irwini, Darth Vader from Star Warsi, or my dog"? He said, "Your dog." Now if you thought my question was stupid, then think again. The other two people have also got Australian reptile species named after them; one by John Cann, the other by Wells and Wellington.

Science or Politics

Then there was the Australian Herpetological Society herp conference I was at in October 1999. At the dinner table I sat next to one of Australia's most eminent herpetologists. He asked me, "Why the hell did you name a death adder after Richard Wells?" That was *Acanthophis wellsei*, the black-headed form from the Pilbara. I asked, "What was wrong with that?" to which he replied, "But Wells is the AIDS of Australian herpetology." Wells hasn't been the most popular bloke in Australian herpetology ever since he published a pair of papers^{1,2} which had hundreds of taxonomic changes.

Instead of arguing the science or alleged lack of it in the papers, the whole debate in this country has centered around what people think of Richard Wells. You hear things like "I like Richard Wells, so I use his names," or "Wells, he's a mongrel, I wouldn't use his names over my dead body!" In fact the science seems to have very little to do with it, which in my view is a bit of a tragedy. Surely if the taxonomy and the names are right they should be used. If they are wrong, they shouldn't be. Why should personal likes and dislikes of the author matter?

Simple eh? No. Take for example the name given by Wells and Wellington for the smaller Australian pythons, *Antaresia*. Most people who read this magazine will have seen the name in books, magazines and the like. When Wells and Wellington first proposed the name for these snakes, lots of herpetologists here in Australia wouldn't use the name. Why? Because Wells was "out" as far as these people thought. People here tended to look to Hal Cogger for guidance. As author of the definitive book *Reptiles and Amphibians of Australia*, people tend to follow and use the names he prints in his books. And for many years Hal Cogger refused to call the smaller Australian pythons *Antaresia*. Science never came into it.

Then in the mid 1990s Dave Barker asked Hal Cogger what names he should use in his book *Pythons of the World: Part One, Australia*. According to Barker, the conversation was more or less as follows: He asked Cogger: "What should I do, is *Antaresia* correct?" Cogger allegedly told Barker: "Look, *Antaresia* is the correct name, but I don't want to be the first to use it. I'll cop too much flak. But if you put it in your book, I'll also follow with the name in my next edition." And so it was. After years of stalling, Hal Cogger finally put the politics behind the science and used a Wells and Wellington name more than a decade after they'd first proposed and published it.

And what's my view of Wells and Wellington? If the name's right I use it, if it isn't, I don't. Simple eh? After all it's only a name.

Friends Come and Go, Enemies Accumulate

That's an old saying, but from my experience it's also true. I mentioned a number of cases involving a Queensland-based snake-man, Mr. David Williams, in my two *Smuggled* books. The latter case was his involvement in the failed "Austoxin" venture in New Guinea which turned out to be nothing more than a front for the illegal smuggling of rare snakes. And as far as I was concerned that was the end of the matter, although perhaps I should mention that in 1999, his business partner Brian Starkey got busted doing more illegal smuggling of reptiles (see later).

Now also bear in mind that the Williams cases have also been plastered all through the media here in Australia, so in relation to his matters at least, my *Smuggled* books had nothing new in them, or nothing that most herpers here wouldn't have known already. However, David Williams took great offense at what I wrote and has been taking potshots at me ever since.

My taxonomic papers published in 1998^{3,4} and 2000^{5,6} really got his back up. Why? Well besides that he'd theoreti-

1. Wells, R. W., and C. R. Wellington. 1984. A synopsis of the class Reptilia in Australia. *Australian Journal of Herpetology* 1(3-4):73-129.

2. Wells, R. W., and C. R. Wellington. 1985. A classification of the Amphibia and Reptilia of Australia. *Australian Journal of Herpetology, Supplementary Series* 1:1-61.

3. Hoser, R. T. 1998. Death adders (genus *Acanthophis*): An overview, including descriptions of five new species and one subspecies. *Monitor* 9(2):20-30, 33-41.

4. Hoser, R. T. 1998. A new snake from Queensland, Australia (Serpentes, Elapidae). *Monitor* 10(1):5-9.

5. Hoser, R. T. 2000. A revision of the Australian pythons. *Ophidia Review* 1(1):7-27.

6. Hoser, R. T. 2000. A new species of snake (Serpentes: Elapidae) from Irian Jaya. *Litteratura Serpentina* 20(6):178-186.

cally be obligated to refer to “Hoser names” if he referred to the animals within the papers, I’d gone and named one of the snakes *Pailsus pailsei*.

Unbeknownst to me, Williams and his business partner Brian Starkey absolutely hated Roy Pails, the man that the snake was named after. Why? They fell out after a failed business deal. Roy Pails tells me he was financially ripped off by Starkey. Starkey denies the allegation and counters with something similar, but in reverse.

None of that’s terribly important, save for the fact that it gave Williams even greater incentive to attack me and/or the name I assigned to a snake. And so in 1998, Williams and Starkey got onto the Internet and posted far and wide that *Pailsus pailsei* was an invalid genus and species, with the hope that people would believe the posts. Fortunately few people did.

Was I worried? Not really. You see I had the same thing to a lesser extent when in 1981 I published the then radical proposition (as “fact”) that the anthill python was sympatric to and a different species from the Children’s python. At the time everyone else, including Hal Cogger, was writing that *Liasis perthensis* was not a valid species and it was another five or six years before most people cottoned on to the fact that I’d been right.

Now there’s no hard feelings to anyone over that, because science and taxonomic changes often appear radical when first mooted and it’s routine for there to be a time-lag for the general acceptance of new propositions.

But getting back to Williams and his anti-*Pailsus* posts; word around the traps was that Williams intended jumping in and renaming the snake something else a few years later. The idea might have been okay, save for the fact that the ICZN rule of priority (Article 23) would have probably precluded the move.

And then a few years later, Williams raised the “art” of herp politics to a new low. Shortly after the publication of my 2000 papers on taxonomy, Williams was at it again. In a single post that he spammed all over the place he falsely accused me of nearly as many sins as Adolf Hitler. I responded by rebutting the various bits of misinformation via the Kingsnake.com “forums,” but soon found myself a captive of herp politics hiding behind the veil of “science.” You see Williams then ignored what I’d written and re-spammed his original alleged grievances in several thousand e-mails. Seeing the descent into a pointless muck-fight I pulled the pin on further posts.

However others took the bull by the horns and launched their own rebuttals of the posts by Williams and his aliases. Oh, and Williams and his posts were in violation to the ICZN’s code on taxonomy (Appendix A, Article 5), not that Williams had any known skills in the field or had probably ever actually read the code.

It turned out that Williams, in spite of his professed expertise, had told a friend in a private conversation that he’d never even seen a *Pailsus*! Likewise for another of Williams’ mates who claimed to be a scientist and with expertise on the subject,

who, in a later post, backed down and admitted that he also had never seen a *Pailsus*. That post was two years after he first began spamming all over the place that he (as an “expert”) thought *Pailsus pailsei* was an invalid species and genus and merely an underfed king brown snake (*Cannia australis*).

And yes, after a countless number of red-herrings, lies and misquotes, eventually the real grievance did come out. Williams simply didn’t want people to use “Hoser names.” And in eighty years time when we are all dead and buried, who cares what these animals are called? — so long as they are called something. As Neil Davie said: “People can’t call them ‘sp.’ forever.” Like I said; the politics is always more fiery than the science.

Keeping up the Humor

Then there was my end of 2000 trip to South Australia. That’s been a good place to visit for a few years now. You see, the local wildlife department there seem to be doing more things right than wrong in terms of the herpetologists.

Okay, so it means I don’t sell as many copies of *Smuggled* to the herpers there, but I’d prefer it that way. Fortunately, the coppers there keep dealing drugs and running their other scams and rackets, so my various police corruption books sell there by the truckload. I was in Adelaide for a corruption conference in November 2000 and spent most of the following week checking out the local herp scene. The latter is always more interesting.

And here’s a few of the highlights. The biggest reptile dealer (of captive bred stock anyway) in the country is in Adelaide. Known as Ultimate Reptile Suppliers, (located on the www at <http://www.ultimatereptiles.com.au>) it’s a business run equally by Tim Mensforth of Clearview and Roly Burrell of Reynalla (they had an amicable split at end 2002, with Tim keeping Ultimate Reptiles).

I checked out their facilities and they were awesome. Huge clean cages, loads of breeding pens and so on. All the stock looked spick-and-span and they had lots of lovely critters: womas, black-heads and a range of other pythons. Barkly adders (*Acanthophis hawkei*), other elapids and loads of lizards of various types. Tim’s favorites seemed to be the Boyd’s Forest Dragons (*Gonocephalus boydii*). But I have to say that I’m not an agamid man. They just do nothing for me.

But, anyway, Tim was breeding loads of them. Ditto for the pygmy monitors like *Varanus acanthurus* and so on. Now where does the humor come into it? Enter Roly Burrell.

I was taking a few pics of some herps on his front lawn. You know the deal — a few rocks in place to make it look like bush. Plonk the animal down on the surface and take the pics before it walks off. That’s the theory anyway. Of course I ran out of film and so I had to drive off and get some. Roly told me to take his car as it had parked mine in. I drove off and only stopped once on the way to the film shop.

Why? The car had no brakes. What did Roly say later? “I was on a contract from the wildlife department.” That’s his

sick sense of humor.

Then it was woma time. Roly gave me a bin with a sub-adult from Moomba in South Australia to photograph. I'd never photographed a woma from that state. It tried to eat me. Roly laughed. I asked him if the others were the same, to which he replied, "No." Then I asked him why he gave me the stropo one. He said "Look I told you, the wildlife department gave me a contract against you."

But as it happened, Roly had done well. You see the snake sat still in a striking pose long enough for me to get some decent pics.

When Roly decided to feed me he said, "If you write anything about me, tell the readers how good my food is." So I will. He fed me cold hard, half-frozen steak with green hairs on it. After I nuked it in the microwave it was edible. He said "I couldn't feed it to the herps so you got it."

Which reminds me of another Aussie herper, Craig Latta. He's the bloke in the Sydney suburb of Caringbah who built this huge concrete above-ground pool thing to breed his tortoises. You might have seen the pictures of his set-up in a past issue of *Monitor*.

Anyway, I went to visit him one day and he was sitting at the dinner table eating a can of Pal dogfood. Yes, straight out of the tin with a spoon. My wife asked him why he was eating it, to which Craig replied, "If I'm gonna feed it to the tortoises, I have to eat it first and make sure that it's okay."

Or Euan Edwards. He's the traveling snake dealer who actually hails from Australia (or at least lived here for many years). At the Orlando Reptile Expo in 1993, he was having trouble selling some *Pogona henrylawsoni* (or *P. brevis* for the Philistines) at Chris Durham's dealer stand. Euan made up a big sign and placed it on the table: "All lizards unsold by 4 P.M. today will be eaten by myself here — in public — at 4.15." Thankfully they all sold. But I'm sure Euan would have eaten the lizards had they not been sold.

Which reminds me of my youth. I recall eating a large *Heleioporus australiacus* tadpole in Sydney's suburb of Turramurra. I've got to tell you it feels strange having a huge ball of slime wriggle down your throat and then in your stomach.

Snakes and Foods

While in Adelaide in November 2000, I stayed with another herper, Ian Renton, and his girlfriend Therese. Fortunately their eating habits are more "normal." He doesn't eat much, nor does Therese, but when they do, it's mainly things like bread, butter and steaks. Ian's main herp activity is his snake rescue service called "Snake-Away." His business collects snakes from people's backyards when they call him in distress. And although Adelaide has only about a million odd people, the place is literally overrun with eastern brown snakes (*Pseudonaja textilis*). So he's always busy.

Why so many snakes? Because Adelaide's got great habitat for them. Sometimes it seems that the whole town and its outskirts is full of rubbish and sheets of tin and rats and mice

for snakes to feed on. Yes it's true, Adelaide really is a dump, and Ian thanks God for that every day! It's just a pity there's no death adders there! There are rival snake catching outfits in Adelaide like the Adelaide Snake Catchers and Ace Snake Catchers, but Renton's crew does the overwhelming bulk of the work.

A Bigger Sense of Humor?

Now I'm talking about Tony Zidarich. He's the fauna officer who gave a lot of Victorian reptile keepers grief by seizing their animals time and time again. And yes, quite often an embarrassed wildlife department would have to return the animals back to their rightful owners. That's why he became known as Tony ("Seize It") Zidarich.

Anyway, he left Victoria a few years ago and has since taken up a post in the South Australian wildlife department. And yes, like a cowboy cop, he still likes to go for "the bust." Why he left Victoria I don't know. I've heard heaps of stories, but been unable to substantiate any, so we'll just have to take that as an unknown.

Anyway, shortly after his arrival in South Australia he fronted up to Roly Burrell's place. Zidarich told Burrell: "I'm doing a raid," and then went through everything in the place. Zidarich went through the snake shed and the house before checking out the fridge. According to Burrell, Zidarich found some frozen dead Barkly death adders (*Acanthophs hawkei*) in the freezer. Zidarich asked for an explanation, because they were over and above the number on Burrell's permit. Burrell told him: "They were stillborn young, can't you see." Zidarich said he didn't believe him and allegedly said: "You will get a summons, I will see you in court and I will close you down."

Understandably by the time Zidarich left the house, the two were in a state of war. Burrell got on the phone to Zidarich's superior officer, David Barrington. After several years of cultivating a good working relationship with the department, Zidarich had swept into town like a tornado and turned it all upside-down. Burrell gave Barrington an ear-bashing and to his credit Barrington listened to him.

The next day Zidarich was back at Burrell's front door. It was on again. But this time it was slightly different. Zidarich was allegedly complaining that "I never said you'd get a summons" and "You lied to my boss." Burrell stood his ground and said "Look don't [expletive deleted] with me, I was here." Shortly thereafter Zidarich held out his hand to shake Burrell's and said "Look, I won't say I'm sorry, but I'm here to make amends." And that was the end of the saga.

But Zidarich isn't all bad. Far from it. In fact when he's not getting too carried away with his role as a wildlife policeman and going after "the bust," he's actually a very helpful kind of bloke. Many a herpetologist and wildlife keeper will attest to the fact.

Even when things were at their worst in Victoria and Tony Zidarich was seizing herps willy-nilly, he was still actually helping other reptile people with their paperwork and licenses

and giving them friendly advice as to how to further their goals. And ditto for South Australia.

I recall talking to another reptile dealer in Adelaide who said that she thought Zidarich was the best thing to happen to the SA wildlife department. She said: “Look, when you ring up NPWS here, they are usually lazy bureaucratic slob. You ask for something to be done and they tell you they will do it for you if and when they get around to it, and that’s usually never. With Tony (Zidarich) I can pick up the phone at almost any time of day and he answers it. He’s always polite and he gives everything his best shot. If he’s slow in getting back to me he apologizes. How many officials do you know like that?”

She recalled the time that she had some reptiles stolen and went to the police. They were too busy dealing drugs to worry about some stolen snakes. She then rang up Zidarich and reported it to him. Zidarich allegedly staked out the thieves for hours on end and got the reptiles back within days.

Even More Humor

Then there’s the reptile trade itself. Here in Australia we are having the same sort of pattern emerge as in the northern hemisphere. As more and more reptiles get bred in captivity, they become more common and thus the retail prices drop. The pet shops keep selling them, but their margins fall and so they have to look elsewhere to make their money. At the moment the people doing best business here in Australia are those involved in breeding rats, mice, cockroaches, crickets and the like.

I recall going into a pet shop called “SA Fish and Reptile” in Modbury, a northern suburb of Adelaide. Now we’ve all heard the horror stories of pet shops and the pet trade, but this place wasn’t one of them. In fact I don’t think I’d ever seen bearded dragons (*Pogona vitticeps*) that looked so good. I made the comment to the woman who ran the place and she moaned, “Funny you should say that. I think I overfeed them. Put it this way, I’m sure I’m losing money on them as I never get back the money I spend on their food!”

A couple of suburbs over and Tim Mensforth of Ultimates said the same thing. “Look, you can’t make money breeding things like Collett’s snakes (*Paracadechis colletti*) and the like anymore. Unless it’s things like chondros, you’ll never make a decent living breeding herps.”

And he’d put his money where his mouth was. The company was shifting towards things like books, cages and other dry goods. In fact they’d just spent about 30,000 dollars perfecting fiberglass molds for these new reptile cages to be wholesaled through shops Australia-wide.

From the Bush

Most Australian reptiles traded between keepers now are captive bred. When you have people like Roy Pails, Russell Grant and Neil Sonneman in Victoria pumping out hundreds of captive-bred pythons and other herps each year, it doesn’t take long for them to flood our relatively small market and send prices plummeting.

Poor old Roy Pails likes breeding his elapids — tiger snakes (*Notechis*) and the like — but nobody wants to buy them, so half the time he ends up giving them away. Species that used to be “rare” or “expensive” and are now “common” or relatively cheap include Bredl’s pythons (*Morelia bredli*), diamond pythons (*Morelia spilota*), Collett’s snakes (*Paracadechis colletti*) and quite a few of the death adders (*Acanthophis* spp.).

For some of the small monitors the price drop has been even more dramatic. But that’s not just from the major upswing in captive breeding. Over the last 18 months or so, Gavin Bedford through his private company WOMA Research managed to entice the Northern Territory wildlife department to give him permits to collect thousands of reptiles from the bush, specifically for sale to the pet trade. Bedford’s critics call it a “rape and pillage” permit.

Bedford has widely touted the operation as “sustainable use” of wildlife and in fairness to him, none of the reptiles being caught or traded are under any sort of threat, so yes, the term “sustainable use” is perfectly valid. In theory and on the surface the plan seems quite reasonable.

But in practice the whole thing has got a lot of Australian reptile people off-side and for a whole host of reasons. In fact, the Bedford operation is currently one of the most talked about reptile matters in Australia at present (2000–2001) and that’s why I’m devoting space to it here.

For starters there are always those opposed to taking of anything from the bush for any reason. I call them the lunatic fringe. But as it happens they are not Bedford’s biggest adversaries. Then there’s the breeders of things like spiny-tailed monitors (*Varanus acanthurus*).

After investing thousands of dollars in building breeding facilities and buying the breeding stock, some of them have seen their investments dry up, as Bedford can sell his wild-caught specimens to the pet shops in the thousands for half the price and still make a huge profit.

Bedford’s operation has also come under fire because he allegedly sells wild-caught animals to the pet trade that are clearly in ill health. The allegations were backed up with widely published photos of sick and dying monitors allegedly photographed in a pet shop in the Adelaide suburb of Prospect, which were sourced from Bedford.

So far, Bedford’s denied the allegation in terms of his responsibility (you see the lizards may have become ill after being shipped). Furthermore it’s reasonable to expect newly wild-caught reptiles to be generally inferior in terms of health and condition than their captive-bred counterparts and Bedford has never shied away from the fact.

And notwithstanding the obvious, it’s also common knowledge that wild-caught Australian herps will usually adapt to captivity without incident if properly looked after — remember they were all wild-caught at one stage. But all that’s not necessarily enough to put Bedford in the clear in the views of many reptile people here in Australia.

You see, one of the less savory aspects of the past (legal)

trade in reptiles was the disposable pet tortoise trade. You've seen it in the northern hemisphere with the land tortoises, shipped from places like Turkey and Russia ending up languishing in pet shops where they die or end up being sold to novice keepers who don't know how to look after the animals or just don't want to. They still die. And yes, over 90% of these disposable pets fail to live past their first year in captivity.

It was a big money making scam and yes, that's not what most reptile people want when they talk about the legal reptile trade. But Bedford's operation appears to be heading in that direction.

In Australia we too had the disposable pet tortoise trade for many years, although the end of this trade was perhaps the only good thing about the restrictive wildlife laws that overran the country in the 1970s and early 80s. The species in question were the freshwater tortoises, including long-necked (*Chelodina longicollis*), short-necked (*Emydura macquarii*) and pet-shop turtle (*Elusor macrurus*).

You see, among the species Bedford appears to be allowed to harvest in large numbers are the northern long-necked tortoises (*Chelodina* sp.). According to the plan, these are then on-sold to pet shops in the southern states to private keepers.

Now it's a known fact that over 99% of tortoises sold in the past died within a short time in captivity, and they were species native to the areas where they were being sold. What hope does a tropical species have of long-term survival when being sold in pet shops 3,000 km further south? Put simply, most would probably die by the end of their first winter!

Then there's the biggest criticism of the Bedford operation. Indications are that Bedford's right to collect and sell large numbers of reptiles for the pet trade (as in to make money for himself) is an exclusive right or effectively so. Others who have applied for permits to collect reptiles under the same, or even more restrictive, terms have been refused. And that's what's really been getting people's backs up.

It gets back to the potential corruption sort of thing. Now no allegations of impropriety or corruption are being made against Bedford here, but surely a system that gives one or a few people preferential treatment over all others (bearing in mind we are talking about trapping live animals for the pet trade) must be questioned.

That's even more so, when in recent times, people have been charged and even jailed for trapping the very same species Bedford is now allowed to trap for sale to the pet trade, when these same charged people were only collecting in ones and twos for their own private collections.

Bedford justifies his operation by claiming that he donates some of the profits he makes to fund reptile research and he touts this fact widely. He also says that he pays the landholders for the reptiles he takes from their properties, but he hasn't disclosed to me how much these amounts actually are.

Some months before this article was written a series of fairly simple questions were E-mailed to Bedford, but I never

got a reply. The information sought included lists of species allowed to be caught as per the permits, amounts paid to landholders, details of alleged research grants and the like.

However some of these numbers were listed in an article originally published in the *Litchfield Times* on 24 January 2001. My E-mail had been sent to Bedford after he had sent me an E-mail seeking my support for his objectives. He noted that in my books *Smuggled* and *Smuggled-2* I supported the sustainable use of wildlife and he said that his operation fitted the bill. Gavin didn't want to supply me with too many details about his operation for fear of being "set-up," which based on the number of people trying to close him down, was completely justified. Put it this way, if I'd been in his position, I'd probably have given a similar response.

I can't make any overall findings in relation to Bedford's operation because quite simply I'm not privy to all the facts, and that's in spite of my efforts to find them out. However, I can say that my support for sustainable use of wildlife is conditional upon it being part of a fair and equitable legal regime where all people are treated equally and not where a select few are more equal than everyone else and they can profiteer out of the legal regime at everyone else's expense.

However, the exclusivity argument against Bedford (as I have outlined or implied above) is far from watertight. It's been said that Bedford's scheme is a "pilot," (or limited scheme) which means that if it is successful (in the eyes of the bureaucrats), it will be opened up to others.

There is some sense in running "pilot schemes" for anything before introducing the schemes more widely. If the scheme as outlined above is merely a pilot or a precursor to something wider, then Bedford will cease to be the target of most people's attacks and the main argument against him (exclusivity) evaporates.

The fact is that the biggest noises against Bedford and his operations have come from his business rivals (including those cited in the *Litchfield Times* article of 24 January 2001). They are those who keep and breed similar species of reptiles to those Bedford sells and are seeing their potential profits being undercut by him. And yes, some of these people were also given relatively unobtainable permits a few years back to capture or otherwise obtain founder stock from the wild that now supports their breeding colonies.

Species in question include monitors and even woma pythons, which sell here in Australia for a small fortune. So if Bedford currently has "exclusive" permits at present in the NT (as it is thought), he may merely be in a similar position to that enjoyed by his biggest rivals just a few years earlier and who somehow managed to avoid the howls of protest. And from that perspective, is it really fair to bring out all the knives just for Bedford?

Or putting forth another perspective, so far the only people given permits to legally collect *Morelia carinata* from the bush in WA have been John Weigel and his business (The Australian Reptile Park) and yet there have been few howls of protest at their exclusivity in having a collect permit—a permit per-

haps worth tens of thousands of dollars to them. (In fairness to Weigel, few others have bothered applying to CALM for such permits because of a general feeling that they'd be refused).

And then it should also be mentioned that when the NSW NPWS had their amnesty for illegally held reptiles in the late 1990s, some prominent keepers went up north and caught hundreds of monitors which they now breed and sell offspring for a huge profit. This jump-start has not since been given to those who entered the hobby since the amnesty was closed and those people must now usually buy the progeny from those breeders who exploited the amnesty loophole to collect numbers from the wild. And some of these "newbies" love Bedford because his monitors and other reptiles are often being sold at more affordable prices and/or are forcing down prices generally.

In other words, the most serious claim against Bedford (exclusivity) when looked at closely, may not be as bad as it first looks, and that's why the most serious criticism of his operations has tended to only come from his main rivals.

And as one of Bedford's friends said, "If he can make money trapping and selling herps legally and without endangering anything, why not? — especially if he is making otherwise overly expensive animals more affordable to people who are new to the hobby."

Finally, I should mention that in early January 2001, Peter Whitehead, the Director of the Key Centre for Tropical Wildlife Management, at the Northern Territory University, Darwin, NT, 0909, Australia, announced that his department would partially fund four herpetological and/or other wildlife research projects in that state for honors students.

The grants up for grabs were said to be anything up to \$4,000, although the details were still uncertain and in effect undecided, pending applications being received and looked at by the supervisors. However to Bedford's credit it was clear that he was a major mover behind the scheme.

What does all this mean? Reptile trapping and keeping laws in Australia in all respects are inconsistent and a mess and with the added influence of commercial interests there will be lots of little battles going on in the foreseeable future. And with sizable sums of money at stake, some will clearly be herper versus herper.

But What Does It All Mean?

Now you've read what I think is a balanced account of the WOMA Research debate here in Australia. You can guarantee that not many of those involved in the debate will think I got it right and I'm prepared to cop a bit of flak for my account, even though (as always) I've tried to be as fair as could to all involved.

And here's what I think about the wider picture in terms of WOMA Research and their collecting of native herps for the pet trade. I love it!

Why? Well it doesn't have much to do with the much maligned Gavin Bedford or his WOMA Research company so much as it does with the Territory Parks and Wildlife Service themselves. You see they have made an Australian first by being a State wildlife authority to issue permits to anyone to collect thousands of live reptiles solely for the pet trade. Now for more than twenty years I've been advocating the government allow people to collect most species of herps to keep as pets and until now the government side have consistently said that the heavens would cave in if they allowed such to happen.

In fact in 1997, John O'Shea of the Queensland NPWS even went so far as to predict mass extinctions of native herps if private people in New South Wales were legally allowed to keep reptiles as pets (following the then proposed amnesty). Of course the extinctions never occurred.

Now at last Territory Parks and Wildlife have, by issuing collect permits to Bedford, finally admitted that I had been right all along.

Bull. Chicago Herp. Soc. 38(8):165-169, 2003

HerPET-POURRI

by Ellin Beltz

More new species!

"A team of student researchers from Bolivia and Britain announced they discovered seven previously unknown species of animals in the rainforests of Bolivia. . . . A joint Oxford and Glasgow University expedition to the Yungas forests of Bolivia's Mosetenes mountain range . . . found two new species of frog, with two new species of snakes and toads, and one new species of lizard." [*Honolulu Advertiser*, June 29, 2003, from Ms. G. E. Chow]

More busts!

In a massive change of scenery, two Asian men are no longer living the luxurious high-flying life of the international jet set. Rather they're in Seminole County Jail after being busted at

Orlando International Airport on charges of smuggling endangered wildlife to individuals in the United States. Officials became aware of the situation when a student at University of Central Florida received two boxes that said "books," but contained 200 animals including rare turtles, tortoises and lizards. The box was sent by a man whom he had met at the Daytona Beach International Reptile Breeders Exposition and whom he knew only by a false name. In exchange, the student shipped Florida kingsnakes, corn snakes, milksnakes, fat-tail geckos and leopard geckos to the dealer in Singapore. The student sold the turtles over the Internet for up to \$400 apiece but hasn't so far been charged in the scheme or expelled. When authorities realized who the falsely named recipient of this herpetological bounty really was, the investigation ramped

up. The man has been connected to importation of protected Indian star tortoises and lizards sent to people in other states, some of whom have come forward with information for the feds. The two men were held without bail on charges ranging from shipping pancake tortoises from East Africa, Hermann's tortoises from the Mediterranean and Borneo black leaf turtles in boxes labeled "native crafts" as well as money laundering and illegally importing endangered animals into Wisconsin. [*Orlando Sentinel*, July 1, 2003, from Bill Burnett]

New indictments!

Last year a man in Pocahontas, Arkansas, opened up a parcel he received in the mail and found a 2-foot-long copperhead, which the federal government in its wisdom classifies as "non-mailable matter." A federal jury in Little Rock has now indicted "a Pocahontas lawyer and his son for mailing the snake 'with the intent to kill or injure' the man who received it," according to the *Arkansas Democrat-Gazette*, July 4, 2003. In addition, they are charged with "mailing nonmailable matter with the intent to injure or kill, an offense punishable by up to 20 years in prison . . . [and] witness tampering. . . ." The snake, as is usual in these cases, was shot by a deputy, it did not harm anyone and was retained for evidence in the trial of the two alleged nonmailable material mailers.

Another slow news day in South Bend!

Front page news, June 27, 2003, *South Bend Tribune* is a story about a 45-year-old formerly dime-store turtle who has lived through 10 U.S. presidencies and outlived the store at which he was purchased—F. W. Woolworth's. Turns out "Mr. T" is actually "Ms. T," an eastern painted turtle that spends sunny days in a play pool in the yard and nights in a baby washtub in the garage. After her whole lifetime, the turtle's companion says that everyone likes to talk about her turtle, not the least bit being how long it has managed to live in Niles, Indiana. [from Garrett Kazmierski]

Snake his day

Check out Dave Barry's close encounter with Florida wildlife while he was trying to write a column on his computer. It's hysterical and unquotable, but published in full on the website: http://www.miami.com/mld/miamiherald/living/columnists/dave_barry/6238197.htm [*Eureka Times-Standard*, July 6, 2003, from Bradford Norman] One wonders what address they'd have filed this story under if he hadn't survived the experience . . .

Kittens of the turtle world?

Geochelone sulcata, the African spurred tortoise, are beginning to be a bit of a pet rehabilitation problem. People have been buying them when they're cute for as little as \$25, but they grow to 30 inches and 100 pounds when mature, rather like "an elephant in a shell," according to the director of a nonprofit turtle rescue and conservation program on Long Island, New York. At a mere 20 pounds, she added that the tortoises can move large furniture. They also burrow, ripping up flooring and back yards. In one extreme case, a couple spent \$25,000 repairing a foundation wall after their *sulcata* burrowed under it and wouldn't come back out. Allen Salz-

berg said, "No one tells you how big they get—that eventually it's like having a 19-inch television walking around your house. I've seen one go eyeball to eyeball with a German shepherd and the German shepherd blinked first." They also live 150 years. [*Chicago Tribune*, March 11, 2003, from Rob Streit]

Oh, say can you see?

- By the dawn's early light around the 4th of July holiday, volunteers looked in vain for sea turtle nests. Seems the turtles didn't like all the "whee!" and "pop!" and "fizz!" and "Bang!" of all the fireworks sold in beachfront shacks. Every morning all they'd find were "false crawls," tracks up the beach, and then back out again. No eggs. In previous years early July has been the peak of the nesting season. Holiday celebrants also littered the beach with the plastic and cardboard explosive debris, cigarettes, bottles, cans and feces. Oh, by the way; fireworks larger than sparklers are illegal in Florida if you're not farming or mining. "I've got 10 to 15 groups of people shooting off fireworks every night, seven nights a week," said the local mayor. People can't sleep and turtles can't lay because some people are out of control. [*Orlando Sentinel*, July 2, 2003, from Bill Burnett's mom]

- In an annual event since 1990, the Mauna Lani Bay hotel on the Big Island of Hawai'i has released 3-year-old green sea turtles on July 4. Around 1,500 people show up, about half local to watch. A traditional hula was performed portraying huge supernatural turtles that looked like islands when they surfaced, traditionally to save people in rough seas. The turtles are raised in the hotel's ponds, then released. One swam around the Hawaiian islands with a transmitter on his back. His time? Nine months, 3000 miles which was judged not bad for a turtle that spent his first three years in a pond. The educational fair and carnival atmosphere create a memorable event and one which benefits turtles in many ways. [*Honolulu Star-Bulletin*, July 2, 2003 from Ms. G. E. Chow] Last year I got a letter from a Hawaiian resident who felt that the article I was working from was less than respectful about this annual event. All I can say is that I get and summarize so many articles in a year that I can't even remember if I wrote about this before; but if I upset anyone—I certainly didn't intend to be upsetting. I like turtles and enjoyed immensely swimming with the turtles when I was last on the Big Island. You can read all about that on my website [<http://ebeltz.net/hawaii1.html>].

Cryptozoology 307

Scientists are absolutely not sure what the 40-foot-long pile of slimy flesh is that washed up on a beach 750 miles south of Santiago, Chili. Some suspect the gelatinous blobby mess might be what is left of the mortal coils of a giant octopus. Others proposed it might be just a pile of decayed blubber from a dead whale. In either case not a herp, but apparently so disgusting that Ray Boldt just couldn't restrain himself from sending it. [*Chicago Tribune*, July 3, 2003]

DAPTF finds a sponsor

Apparel manufacturer "Peace Frogs began in 1985 in a dorm room . . . [and] is now a supporter of the Declining Amphibian

Populations Task Force and a contributor to the *FROGLOG* newsletter. A percentage of all our proceeds go to groups researching the decline of amphibian populations. The frog is a sensitive little guy. When he starts to go, are we far behind?" Their website is now <http://www.peacefrogs.com> and has information on their contributions as well as photos of their products. [Summer 2003 catalog from Ken Sumer]

Coqui Monsters & Other Invaders

Super clipper Ms. G. E. Chow sent in the following seven clippings over the past few months:

- Hawaiian state officials are looking for new ways to stop the arrival of any more invasive species. "The catchwords these days are 'early detection' and 'rapid response,'" said a zoologist from the Bishop Museum. Another pointed out that once a new species becomes established, it is even more expensive to get rid of it. Private property rights enter into it, as well. For example, without a private land owner's permission or a court order, wildlife officials could not chase a brown tree snake across private property. [*Honolulu Advertiser*, March 13, 2003]
- A golf course worker discovered what appeared to be a freshly shed snake skin and wildlife officials spent the next few days searching for something 3 inches in diameter and 3–6 feet long. A special snake-finding dog may have caught the scent, but the snake was no longer in the garage where the skin was found. [*Honolulu Advertiser*, February 21, 2003]
- A spray of citric acid is believed to have killed all the coqui frogs on Kauai Island. Officials hope that small populations on other islands can be wiped out as well. One nursery owner suggested that trying to control coqui frogs on nursery plants shipped off the Big Island is "throwing money down a rat hole." On the other hand, researchers feel they can stop or slow the spread of the species, warning that if they do not, a huge frog population could provide food for the next invasive alien species. [*Honolulu Star-Bulletin*, June 24, 2003]
- "A team of invasive species scientists and administrators traveled from Hawai'i to Guam . . . to practice trekking through wooded areas at night, spotting snakes hanging from trees and capturing them," according to the *Honolulu Advertiser*, June 13, 2003. One of the participants said, "it's not as drama-filled as 'Crocodile Hunter.'" They learned that "before [Guam's] bird population was almost completely killed off by the snakes, the reptiles also caused a number of electrical blackouts on the island. They would climb transformers to get closer to their prey, and arc their bodies between power lines. Once the birds were nearly eradicated, the snakes switched to lizards and skinks. . . . Population densities are estimated in some areas at up to 13,000 snakes per square mile." While there are no snakes on Hawai'i, yet, there were 236 snake sightings over the past 10 years. Of that number, 63 snakes were found dead or wandering around; 74 were pets and 99 were never found at all.
- A search of an area where six veiled chameleons were found in December 2002, found 21 more. The multi-agency team suspects they may have become naturalized in the residential area. Also captured were 102 Jackson's chameleons, also not

native to Hawai'i, but which have become established in many areas of the island. [*Honolulu Advertiser*, January 31, 2003]

- Plant shipments spread coqui frogs (*Eleutherodactylus coqui*) from infested nurseries on the Big Island to most of the other parts of the archipelago before officials realized what was happening. Now they're working with private landowners to use citric acid spray which kills frogs but which also can burn vegetation. Some parks are treating tropical plants, then ripping them out and replacing them with native Hawaiian plants that are less hospitable to coquis. [*Honolulu Advertiser*, December 30, 2002]
- Coquis are native to Puerto Rico and for a long time were thought to only be able to live there as previous translocation efforts failed. Whether they arrived under their own power, in an imported plant or in some Puerto Rican tourists' luggage it would seem they are now in Hawai'i to stay. On February 28, 2003, the "eradicators concede Big Island to frogs." The U.S. Department of Agriculture realized that their \$10.7 million plan to rid the state of coquis would have to be "updated to acknowledge that eradication is no longer possible on the Big Island. . . . The coqui . . . and the greenhouse frog (*E. planirostris*), have tripled their range statewide in the past year . . . [and] have found habitats in 2,000 acres across the state." [*Honolulu Advertiser* February 28, 2003]
- Coquis in Puerto Rico are just as explosive breeders as they are when they get to Hawai'i. One of the controls on their survival is the whip scorpion. Another weird island endemic, it has no tail and its body is only the size of a quarter, but its arm span is the size of a salad plate. [*Science News*, January 4, 2003, from Jack Schoenfelder]
- Recently I received an E-mail asking if the coqui frogs that have invaded Hawai'i are live-bearers or egg-layers. I did a little research and found that "With the exception of only one species, eleutherodactylid frogs lay eggs that undergo direct development in terrestrial situations, rather than in water like most frogs. The 'tadpole' stage occurs entirely within a terrestrial egg, rather than as a free-living larval stage, and adult features form directly. . . ." [<http://invasions.bio.utk.edu/invaders/coqui.html>] Also, "eleutherodactylid" means "free-fingered" and refers to the lack of membranes between the fingers which other types of tropical frogs use for aquatic movements and/or gliding surfaces when they hop, fall or jump out of trees. [<http://www.cnn.net.clu.edu/procoqui/eng/ekarlschmidt.html>] There apparently was one form of live-bearing coqui, but it had a very restricted distribution and none have been seen since the early 1980s. [<http://endangered.fws.gov/i/d/sad0e.html>]

#1 Killer of Wildlife Strikes Again

A Miami-area woman opened her door one morning expecting to find nothing more exciting than her newspaper; instead she started screaming. When her boyfriend came running, she calmed down enough to point to a dead four-foot alligator neatly arrayed on the front stoop. Was it a new version of the horse's head in *The Godfather*? Or perhaps some form of obscure Santeria ritual? Officers on the scene turned the gator over and discovered a clear tire mark. Case closed, gator

removed. Just another day in metro Miami. [*Miami Herald*, June 14, 2003, from Alan Rigerman]

Besieged by an invasion of toads

“Authorities in . . . [a] Bulgarian village . . . battled an invasion of toads that besieged the community after being driven out of their former habitat by land filling. Thousands of the amphibians congregated around the villages . . . following their food supply of insects that used to live in the rubbish dump that was recently filled in. The Bulgarian environment ministry told angry residents that the toads are harmless, and the landfill had created a fresh ecosystem and food chain for wildlife.”

[*Honolulu Advertiser*, June 15, 2003, from Ms. G. E. Chow]

So what happened?

On January 30, 2003, the *Chicago Tribune* described an experiment at a new strip mall at Lakewood and Algonquin Roads in McHenry County where artificial nests and turtle fencing was to have been installed for Blanding’s turtles. The artificial nests were to be the first of their kind in Illinois. About 75 Blanding’s turtles were described as still asleep in “the muck of the marsh” while “biologists trudged through snow to map the best locations for the nests.” Anybody know if this project actually happened? [from Ray Boldt]

“Fingerlings”

- “A restocking program by the Arkansas Game and Fish Commission saw the relocation of more than 2,800 Louisiana alligators in south Arkansas [after the reptiles were put on the Endangered Species List in 1973]. Thanks to the commission’s gator aid, alligators are thriving and have been seen in 45 Arkansas counties. A recent study showed an average of 1.2 gators per square mile in south Arkansas.” The state herpetologist quoted in the article is the same Kelly Irwin with whom we shared a memorable lunch many years ago. [*Arkansas Democrat-Gazette*, February 7, 2003, from Bill Burnett]
- A photographer in Alabama caught a by now almost cliché photograph of an alligator in the road, surrounded by conservation agents with poles and ropes, and an official pickup truck. One wonders if they waited for the photographer to get going. The gator looked lethargic, but as we all know, that can change quickly. Of course, if there had been any Steve Irwin-ism, the photographer would have caught it and the editor would have used it, so the gator probably was cooperative. [*Chicago Tribune*, June 4, 2003, from Ray Boldt]
- A Lake County, Florida, man received a \$180 citation for lassoing a 5-foot alligator he said was threatening a woman and four children near the local elementary school. The man was unapologetic; this occurred in the same town as the fatal attack on a 12-year-old boy who was swimming at dusk in the Dead River. He had the animal under control when police arrived. They ordered him to cut the rope and let the gator go. When the game officer arrived, he issued a ticket and called for a gator trapper to go get the gator which had been set free just minutes before. [*Orlando Sentinel*, June 22, 2003]
- After a weekend of public outcry, the \$180 ticket was rescinded and replaced with a warning. The man sought legal

advice and has decided not to appeal the warning. Wildlife officials still insist people need to call 911, not take matters into their own hands. [*Orlando Sentinel*, June 24, 2003]

- Officials estimate there is now one alligator for every 17 people in Florida. About 17 million Floridians live in gator habitat. You do the math. [*Orlando Sentinel*, June 20, 2003]
- Commentator Mike Thomas wrote about the death of the boy and the response: “The deputies have pretty much cleared the Dead River of gators. They killed 11 big ones. That may soothe some people, but it’s only a gesture. When you kill 11 big gators, all you do is make room for 11 more. As one cop said, they’re like crack dealers. This tragedy may bring on a demand to slaughter more gators. If that’s the case, we might as well kill all the rattlesnakes and moccasins, too, then put concrete bottoms on all the lakes and chlorinate them. Alligators are not vicious killers. They are mindless, amoral predators. What we had at the Dead River was the tragic convergence of an alligator acting like an alligator and a 12-year-old boy acting like a 12-year-old boy.” [*Orlando Sentinel*, June 22, 2003, all from Bill Burnett]

Voice of the people

Selections from the letters to the editor *Orlando Sentinel*, July 4, 2003.

- “I’m just glad the gators don’t run [an article] . . . that asks, ‘Too many people?’”
- “Get rid of the alligators. . . . The ‘endangered species’ has now taken over . . . crawling into our swimming pools, carports and retention ponds . . . eating our pets, and they are trying to eat us. They are everywhere. I think we can easily spare a few of them.”
- “I don’t hear people saying that we should get rid of cars when a child gets hit by one or ban swimming pools when someone drowns. When do we stop destroying God’s creatures to satisfy human control?”
- “People come to Florida to see its natural beauty, including alligators. . . . By getting rid of all nuisance animals . . . our state will no longer be Florida and will turn into another urban environment without natural beauty.”
- “What good are they, anyway? . . . Great shows of waterbirds nest over masses of swimming gators, who unknowingly act as guardians of the nests, which are out of reach to them. The birds have this figured out and flock there. In case any raccoon, opossum or rat snake gets the wild idea it would be fun to swim to a nest bush for a snack, it’s in for an unforgettably exciting experience. . . . Baby gators are commonly eaten by herons and large egrets, especially by black-crowned night herons. . . . Large fish, big gators and all sorts of mammals eat them, too. . . . As long as we have wetlands, we will have hazards and deaths from drowning, boat and auto accidents, waterborne diseases and even entrapment in waterweeds, and wildlife.”

SARS, monkeypox and us

Lee Watson’s Reptile Swap continues twice a month in

Streamwood despite “the bust” and without any prairie dogs or Gambian rats after they were vectors of the recent monkeypox outbreak in the Midwest. One long term breeder of pygmy African hedgehogs said, “Everyone is concerned that they’re going to take a simple problem and lump a lot of things into it.” [*Chicago Tribune*, June 16, 2003, from Ray Boldt] Meanwhile, Hong Kong based researchers are awaiting publication of their paper by *Science Magazine*. It is believed their paper will show that antibodies to SARS were found in the blood of human workers in the food market in southern China where the outbreak seems to have begun. The civet cats in which the SARS virus was allegedly found are captive bred in both China and Taiwan for food. The civet farmers are just about out of business since the animals have been banned from the markets. [*Science*, July 18, 2003, from Aiken Reed II]

Envelope of the month

Thanks to Ray Boldt who rose to last month’s Challenge to

Eliminate Origami. He sent a “Snapple” bottle cap! It is part of their real fact series and reads: “The only continent without native reptiles or snakes is Antarctica.” It was carefully wrapped in clippings and encased in a bubble envelope. Due to the tiny size mailbox we received when we arrived in Ferndale, all large envelopes are hand-delivered to us at the window and therefore arrive not squished. Our postmistress said, “If we knew how much mail you got, we’d have given you a larger post office box!” And they still might, but that would mean changing the address. In the meantime,

Thanks to everyone who contributed this month and to Bradford Norman, Jack Schoenfelder, Eloise Mason, Bill Burnett’s Mom in Florida, Wes von Papineau, and everybody else who even considered sending material for this column. Mail whole pages of newspapers or magazines with your name on all the pieces in nice big envelopes to: Ellin Beltz POB 934, Ferndale CA 95536.

Unofficial Minutes of the CHS Board Meeting, July 18, 2003

Lori King called the meeting to order at 7:40 P.M. Board members Tom Anton, Darin Croft, Mike Redmer and Jack Schoenfelder were absent.

Officers’ Reports

Recording Secretary: Zoe Magierek read the minutes of the June 13 meeting. Corrections were made and the minutes were accepted.

Treasurer: Jim Hoffman presented a balance sheet and spoke about the positive financial results of ReptileFest.

Membership Secretary: The July mailing was to 727.

Standing Committees

Shows: Bob Bavirsha mentioned that Special Olympics will be having a program in Grant Park by the bandshell on July 20 and wanted to know if others representing the CHS wanted to come. Linda Malawy and Rich Crowley were also going. Bob also mentioned that the Little Red Schoolhouse Nature Center wanted us to perhaps do a show on their grounds and he was wondering how this was handled. It was brought up that we would like them to advertise us as being there and submit a formal show request.

Adoptions: Adoptions is covering expenses from donations received and people are continuing to donate as they turn over animals. Linda Malawy said that the St. Louis Herpetological Society is helping to place some animals and that the sulcatas are going to a preserve in Oklahoma. She also brought up the idea of adoption program business cards.

Ad Hoc Committees

Zoo trip: Many people have made reservations for the zoo trip already and as was done last year, if the trip has not sold out soon invitations will be extended to Notebaert and Chicago

Wilderness members.

Old Business

PARC: Answers to questions about the PARC letter will be at the next meeting. One of the goals is to set up a PARC representative in every state.

Annual Awards: It was mentioned that perhaps we had paid too much for awards in the past and Joan Moore is going to research prices and award options. Jack Schoenfelder should be able to supply Joan with the wording of the awards.

New Business

Bob Cullnan mentioned the lack of parking at the general meetings during the summer months. There really is no perfect solution. Bob Bavirsha mentioned \$7–8 parking behind the conservatory and Mike Dloogatch said that coming early and parking on the street was an option, leaving the driveway parking for others.

Ideas and Suggestions

Bob Cullnan mentioned the need to keep memberships perks enticing. Bob said that since our membership is down we need to keep perks up to perhaps bring in new members.

Round Table

Lori King mentioned a newspaper report about a population of feral Nile monitors in Cape Coral, Florida, and a program to eradicate them. She also mentioned that Koko, a Komodo dragon at the St. Louis zoo died suddenly on Monday at ten years old.

Mike Dloogatch moved to adjourn; Jenny Vollman seconded. All in favor, the meeting adjourned at 9:20 P.M.

Respectfully submitted by Recording Secretary Zoe Magierek

Herpetology 2003

In this column the editorial staff presents short abstracts of herpetological articles we have found of interest. This is not an attempt to summarize all of the research papers being published; it is an attempt to increase the reader's awareness of what herpetologists have been doing and publishing. The editor assumes full responsibility for any errors or misleading statements.

NEW TOAD SPECIES FROM SOUTHERN ECUADOR

J. B. Pramuk and F. Kadivar [2003, *Herpetologica* 59(2):270-283] describe *Bufo amabilis*, a new species from the Andes of southern Ecuador. The species name comes directly from the Latin word for "lovable." The authors state: "The specific epithet . . . refers to the particularly lovely demeanor of this and all toads of the genus *Bufo*. With this name, we hope to change (at least in part) the often maligned public image of these beautiful and ecologically beneficial animals." The new species is assigned to the phenetic *Bufo spinulosus* group based on its narrow frontoparietals, poorly developed cranial crests, and weak sculpturing of the dermal roofing bones. This species most closely resembles *B. spinulosus*, but the two species differ from one another in several aspects of their external and cranial morphology. A key is provided for the species of *Bufo* from the Andes of Ecuador and Peru.

USE OF GROWTH RINGS FOR AGING TURTLES

D. S. Wilson et al. [2003, *Herpetologica* 59(2):178-194] note that the technique of counting growth rings to estimate age of turtles is widespread in the scientific literature. Review articles to date have provided lists of authors who have found the technique useful or not, but have failed to evaluate properly how well the technique actually works. To examine how well the published literature supports a biologically meaningful relationship between age and number of growth rings, the authors surveyed 145 scientific papers that have used counts of rings on scutes to estimate age of individual turtles. Of the 145 papers surveyed, the authors of 44 papers, which comprised 49 case studies, presented data testing the use of growth ring counts for a population of turtles. Of these 49 case studies, 6 reported that the use of the technique was reliable for aging their turtle species past sexual maturity, 15 reported its use to be reliable for aging turtles to young adult (i.e., sexual maturity), 8 reported its use to be reliable for aging juvenile turtles, 2 found it to be reliable with no age limit given, and 8 reported its use unreliable as a method for aging their turtles. Although 22 papers addressed the pattern of growth ring deposition, only four case studies had sufficient data to indicate that a consistent number of rings was added each year. This paper illustrates how the widespread use of this technique ultimately has led to its acceptance without tests of its validity or accuracy. The authors conclude that (a) studies attempting to calibrate the relationship between growth rings and age are few, (b) a majority of the papers surveyed referenced other papers that did not themselves include a test justifying growth ring counts as an estimate of turtle age, (c) aging turtles from counts of growth rings might be feasible in some types of studies, for some species at some locations, but only after calibrating the relationship between ring counts and age for each circumstance, and (d) there is currently no justification for generalizing the use of growth rings to estimate turtle age for many species.

TRANSLOCATED BAHAMIAN IGUANAS

C. R. Knapp and C. L. Malone [2003, *Herpetologica* 59(2):195-202] used microsatellite analysis to investigate the reproductive success and genetic structure of a translocated colony of the Bahamian iguana (*Cyclura cychlura inornata*) 10-yr post introduction. The study looked at the reproductive success of the founder males to determine if all were contributing equally to the descendant gene pool. Genetic diversity in the founder population was compared with that in the incipient, translocated population to determine if the number of translocated individuals was sufficient to retain the genetic diversity derived from the source population. In 1999, the estimated population size for the translocated colony was between 75 and 90 individuals. Blood was taken from 35 iguanas (16 males, 18 females, and 1 juvenile) of mixed age, including the four original translocated males and three of the four original translocated females. Of the eight polymorphic microsatellite loci in *C. cychlura*, only five were polymorphic in *C. c. inornata*. With two exceptions, the low average allelic diversity and heterozygosity among these loci (2.4 and 0.45, respectively) hindered accurate determination of parentage among the founders. Nevertheless, the data indicated that the potential parental contributions appear equal for the founder males and that, at 10-yr post introduction, the small amount of genetic diversity at the amplified loci in the founding population was retained. The low level of genetic variation appears to have no negative short-term effects on the translocated or other populations of *C. cychlura* inhabiting the Exuma Island chain, making them excellent candidates for translocation and repatriation programs if physiological and environmental requirements are met.

TREEHOLE USE BY AN AMAZONIAN CANOPY FROG

L. Schiesari et al. [2003, *Copeia* (2):263-272] present information on the natural history, reproductive and developmental strategies of the canopy treefrog *Phrynohyas resinifictrix*. *Phrynohyas resinifictrix* is a widespread Amazonian species breeding exclusively in water-filled treeholes in terra-firme rain forests. Females laid relatively large, floating egg masses in the treeholes. Gut content analyses indicated that tadpoles are generalists and predominantly macrophagous, basing their diet on detritus and conspecific fertilized eggs of younger cohorts. Tadpole guts were found to contain up to 62 intact eggs. This cannibalistic interaction is presumably of major importance for the completion of the larval stage and may result in depletion of entire egg complements. Strong site fidelity, interference competition for treeholes by territorial males, continuous use of treeholes year after year, repeated oviposition in treeholes, and temporal constancy in density of calling males are consistent with the hypotheses that adequate treeholes are a limiting resource for *P. resinifictrix* populations, or that location of unoccupied treeholes in the rain-forest canopy involves substantial risk or energetic costs.

MEXICAN GARTER SNAKES

R. Conant [2003, American Museum Novitates 3406] notes that there are many isolated endorheic [i.e., not draining to the sea] lakes in the transvolcanic belt of Mexico, which are the result of volcanism or extreme flooding. Organisms living in the lakes have had ample time to differentiate, and endemism is well known and documented, especially among the fishes. Other organisms also show endemism, including salamanders, crayfish, and even birds and mammals. The same is true for the garter snake, *Thamnophis eques* (Reuss). Seven new subspecies are described in this paper, each from a different lake or from the remnants of a former large lake. Based on morphological differences in coloration and pattern, they are *T. e. cuitzeoensis* from El Lago de Cuitzeo, *T. e. patzcuaroensis* from El Lago de Pátzcuaro, *T. e. insperatus* from La Laguna de Zacapu, *T. e. obscurus* from El Lago de Chapala, *T. e. diluvialis* from Las Lagunas Atotonilco and Cajititlán and several isolated localities, *T. e. scotti* from El Lago de Magdalena, and *T. e. carmenensis* from La Lagunilla del Carmen. Among six of these, series of specimens were collected and studied in detail. The seventh (*insperatus*) is known only from a single imperfect individual.

DISPLAY BEHAVIOR OF TERRITORIAL LIZARDS

S. McMann and A. V. Paterson [2003, J. Herpetology 37(2): 414-416] examined whether display behavior of territorial male lizards (*Anolis sagrei*) differed between locations within heavily used portions of their activity areas (cores), and locations outside of these heavily used regions. In a southern Florida hardwood hammock, the authors observed six males in each of four 20 × 20 m plots, recording each male's location and display behavior for three 1-h sessions. When males were outside of their core activity areas, they produced more bobbing displays relative to nodding displays than when they were within their core areas. Similar relationships have been reported in other taxa, such as birds, but they have been little studied in reptiles. The causes and consequences of this display variation remain to be determined.

PREGNANT WATERSNAKES ARE NOT ANOREXIC

R. D. Aldridge and A. P. Bufalino [2003, J. Herpetology 37(2):416-419] report that the active season of the common watersnake (*Nerodia sipedon sipedon*) in Missouri lasts about 170 days, from mid-April to early October. Females begin vitellogenesis in April, ovulate in June, and give birth in August to September. Reproduction occupies about 130 days (76%) of the active season. Food was present in 71% of vitellogenic snakes, 64% of pregnant snakes, and 43% of postpartum snakes. Coelomic fat mass decreased during vitellogenesis but increased during pregnancy. At parturition, 40% of females had sufficient fat reserves to reproduce the following year. Dry mass of ovulated ova/developing young did not change through pregnancy; however, wet mass increased from 45% in freshly ovulated ova to 78% at parturition. The authors conclude that reproductive females are not anorexic and that the increase in water content of the embryos adds considerable mass to the mother during pregnancy.

MOUNTAIN KINGSLAKE FEEDING ECOLOGY

H. W. Greene and J. A. Rodríguez [2003, Copeia (2): 308-314] determined that based on stomach contents of museum specimens and published records ($n = 51$ prey items), the California mountain kingsnake (*Lampropeltis zonata*) eats lizards (37, 72.5%), squamate eggs (6, 11.8%), mammals (6), and birds (2, 3.9%). Juveniles feed on lizards, especially *Sceloporus* (spiny lizards) and *Eumeces* (skinks), whereas adults supplement their diet with squamate eggs and endothermic prey. Prey items are located by active foraging, usually swallowed head-first, and average 33% of snake mass. The diet of *L. zonata* overlaps substantially with that of several other species of sympatric, medium- to large-sized snakes in mesic western North American woodlands; it is narrower than that of the more widely distributed *L. getula*, and similar to that of allopatric, more closely related *L. alterna* and *L. pyromelana*.

HERPETOFAUNA OF THE RICHTERSVELD

A. M. Bauer and W. R. Branch [2001 (2002), Herpetological Natural History 8(2):111-160] explain that the Richtersveld is an arid montane region in the extreme northwest of the Republic of South Africa. It is bordered by the Orange River to the north and is bisected into a more mesic, fog-affected western zone and a more xeric eastern zone by the Vandersterrberge. The northernmost part of the Richtersveld has been designated as a contractual national park (i.e., the park is leased from the local inhabitants) and was the center of the authors' regional herpetofaunal survey activity over a period of 5 years (1992-96). Seven amphibians and 57 reptiles have been recorded from the Richtersveld National Park (RNP). Most species are either rupicolous or are terrestrial or fossorial inhabitants of sandy soils. Geckos (18 species) are the most diverse group in the park. Reported diversity is greatest along the Vandersterrberge and in the vicinity of Sendelingsdrif on the Orange River. The fauna includes a small number of regional endemics (*Bufo robinsoni*, *Goggia gemmula*, *Pachydactylus haackei*), Namaqualand species reaching their northern limit in the RNP (e.g., *Homopus signatus*, *Pachydactylus labialis*, *P. namaquensis*, *Cordylus lawrencei*), Namibian xeric species reaching their southern limits in the Richtersveld (e.g., *Palmatogecko rangei*), and many, more widely distributed taxa. Eleven additional species of amphibians and reptiles occur in areas immediately adjacent to the RNP. The Orange River has served as a barrier to dispersal or an agent of cladogenesis for some species (e.g., *Narudasia festiva*, *Typhlosaurus vermis*) but not for others. It has played a role as a dispersal corridor for both psammophilous species moving upstream (*Palmatogecko rangei*, *Typhlosaurus meyeri*) and aquatic species moving downstream (*Afrana angolensis*, *Varanus niloticus*). Human resource utilization in the RNP includes alluvial diamond mining and small-stock grazing. The former appears to have minimal impact on the herpetofauna because the areas mined are relatively depauperate to begin with. Grazing, however, may negatively impact amphibians and reptiles by decreasing vegetative cover, compacting soil, and fouling springs and water points.

WHEN AND WHERE TO FIND A PITVIPER

M. E. Oliveira and M. Martins [2001 (2002), *Herpetological Natural History* 8(2):101-109] describe activity and habitat use in *Bothrops atrox* from central Amazonia using three methods: time constrained search (TCS, in swamp forest in a stream valley and terra firme forest on a plateau), occasional sightings (OS; both in primary forest), and snakes brought to a hospital (IMTM). Results for OS and IMTM indicate that *B. atrox* is significantly less active during the dry season. The monthly number of snakes found with OS and brought to the IMTM were both correlated with rainfall and relative humidity, but not with temperature. Monthly number of individuals found with TCS did not differ from expectation and was correlated with rainfall but not with humidity or temperature. Encounter rate at night was much higher than by day. Most snakes found at night were hunting in a coiled posture, whereas most snakes found by day were moving. Juveniles were found more frequently on vegetation than adults. The higher incidence of snakebites by *B. atrox* in summer in the Manaus region may reflect this increase in activity. Unimodal seasonal activity and primarily nocturnal habits are widespread in *Bothrops*. Ontogenetic shift in microhabitat use is also common in semi-arboreal lanceheads and may be related to food availability and perhaps a higher predation pressure at the ground level.

CONSEQUENCES OF EGG RETENTION

D. A. Warner and R. M. Andrews [2003, *J. Herpetology* 37(2):309-314] note that egg retention beyond the normal time of oviposition occurs frequently in oviparous squamate reptiles and is thought to be a response to unfavorable nesting conditions. During studies of the eastern fence lizard (*Sceloporus undulatus*), the authors obtained data on the effects of extended egg retention on embryonic development, hatchling phenotypes, and posthatching survival under natural field conditions. Females that retained eggs beyond the normal time of oviposition produced heavier eggs with embryos more advanced (by one stage unit) at the time of oviposition than females that did not retain eggs for extended periods. Egg retention did not affect any hatchling phenotype (i.e., body size, thermal preference, running speed, desiccation rate, growth rate) but had a significant positive effect on posthatching survival in the field. However, the mechanism by which extended egg retention affects posthatching survival remains unclear. These results have implications for the evolution of viviparity, but carefully designed experiments are needed to further understand the causes and consequences of extended egg retention.

PREY CHEMICALS AND PERCH CHOICE

W. E. Cooper, Jr. [2003, *J. Herpetology* 37(2):425-427], to ascertain whether an ambush forager might select ambush posts bearing chemical cues, presented emerald swifts (*Sceloporus malachiticus*) a choice between two ambush posts affording minimally overlapping views. One post was labeled with chemical cues from mealworms, the other was unlabeled. Occupancy of ambush posts was random with respect to mealworm scent. It appears that ambush foragers use chemical cues neither to locate and identify prey nor to select ambush posts.

GOPHER TORTOISE NESTING AND HATCHLING ECOLOGY

D. M. Epperson and C. D. Heise [2003, *J. Herpetology* 37(2):315-324] investigated reproductive and hatchling ecology of gopher tortoises at Camp Shelby Training Site in southern Mississippi from 1997 through 2000. Data were collected on nesting, hatching success, hatchling survivorship, and hatchling movements. Nests were deposited between 19 May and 17 July, with a peak of nesting activity between 26 May and 8 June. Mean clutch size was 4.8; mean nest depth was 16 cm; mean distance of nests from a burrow mouth was 46 cm; and eggs in most nests were laid in one or two horizontal planes. Eggs hatched in an average of 88 days. Mean hatching success was 28.8%. No significant differences were found in hatching success, incubation time, and hatchling carapace length and mass, between ruderal and forested sites. Forty-eight hatchlings were radio-tracked to determine survivorship and activity patterns. Hatchlings were tracked for up to 736 days; however, most hatchlings (65%) were killed within 30 days of hatching. Survivorship of hatchlings was low, with only one hatchling still alive at day 736. Most mortality was attributed to mammals (54%), although predation by introduced fire ants (*Solenopsis invicta*) was considerable (27%). Hatchlings that survived through their first overwintering period moved further from their nest sites than previously reported. Overall the tortoise population had low recruitment rates, which likely influences demography at Camp Shelby.

BOLITOGLOSSA MEXICANA SYSTEMATICS

M. García-París et al. [2002, *Revista Española de Herpetología* 16:43-71] revise the systematics and taxonomy of the *Bolitoglossa mexicana* species group, based on analysis of mitochondrial DNA sequences, morphology, and study of typical specimens. The group is a monophyletic assemblage of large-bodied, long-tailed species with large, nearly fully-webbed hands and feet, usually having striking color patterns of tan to bright yellow, orange, or reddish spots, bands and stripes on a dark black background. The species of the group occur mainly in the lowlands, from San Luis Potosí in north-eastern México to Panamá. To the taxa previously included in the group, *Bolitoglossa flaviventris*, *Bolitoglossa jacksoni*, *Bolitoglossa lignicolor*, *Bolitoglossa mexicana*, *Bolitoglossa mulleri*, *Bolitoglossa odonnelli*, *Bolitoglossa platydactyla*, *Bolitoglossa salvinii*, *Bolitoglossa striatula* and *Bolitoglossa yucatana*, this paper adds the recently described *Bolitoglossa mombachoensis* and a new species, *Bolitoglossa alberchi*. The name *B. mexicana* is applied in a more restrictive sense than formerly, while the name *B. odonnelli* is now used broadly to designate specimens previously assigned to *B. mexicana* on morphological criteria. Well-defined, non-sister, mitochondrial clades corresponding to the morphologically indistinguishable *B. mexicana* and *B. odonnelli* clades pose a complicated biological problem which cannot be solved with the exclusive use of mitochondrial markers.

HABITAT SEPARATION AMONG WATERSNAKES

E. J. Laurent and B. A. Kingsbury [2003, J. Herpetology 37(2):229-235] report that historical records and recent studies indicate that populations of the copper-bellied watersnake (*Nerodia erythrogaster neglecta*) are in decline. Reduction in range and fragmentation of populations are largely based on human activities, primarily through alteration of shallow wetlands. The authors conducted a comparative study of habitat use to determine why *N. e. neglecta* may be more vulnerable to human-induced changes than sympatric congeners. *Nerodia erythrogaster neglecta* were observed primarily along shorelines with gentle slopes near very shallow water and often used herbaceous vegetation, logs, grasses, and sedges substrate categories. *Nerodia sipedon pleuralis* used habitat most similar to *N. e. neglecta*. Although *N. s. pleuralis* were observed to be more aquatic and were more often found in open water, they showed the same close association with shorelines and basking substrates as *N. e. neglecta*. *Nerodia rhombifer* is the least selective in habitat use of the three species and is the least similar in habitat use to *N. e. neglecta* in this study. As a whole, the results of this study support previous research that suggests *N. e. neglecta* is a seasonal habitat specialist. The extensive destruction of seasonal wetlands in the Midwest may thus have a greater impact on *N. e. neglecta* than their sympatric congeners.

KIN DISCRIMINATION IN SALAMANDER LARVAE

R. N. Harris et al. [2003, Herpetologica 59(2):164-177] studied kin discrimination in the larvae of the four-toed salamander, *Hemidactylium scutatum*. The results of a spatial affinity assay supported the hypothesis that larvae can recognize kin and do so whether they have been raised alone or with siblings. Larvae, were attracted to siblings and did not avoid non-siblings. Two additional experiments tested the hypothesis that kin discrimination is a function of predator density. The consistent predator avoidance pattern of larval *H. scutatum* was to lower activity level. In the experiment characterized by a higher predator density, sibling groups of larvae exposed to a predator lowered their amount of swimming more than larvae in mixed sibling groups. These results are consistent with the hypothesis of context-dependent kin discrimination and suggest that individuals can balance costs and benefits of behaviors as a function of ecological and social factors. This study is the first to demonstrate kin recognition in the larval stage of any species in the family Plethodontidae.

COEVOLUTION OF DEADLY TOXINS AND PREDATOR RESISTANCE

B. L. Williams et al. [2003, Herpetologica 59(2):155-163] state that deadly toxins and resistance to them are an evolutionary enigma. Selection for increased resistance does not occur if predators do not survive encounters with toxic prey. Similarly, deadly toxins are of no advantage to individual prey if it dies delivering the toxins. For individual selection to drive the coevolutionary arms race between resistant predators and lethal prey, the survivorship of individual predators must covary with their resistance. The extreme toxicity of the

rough-skinned newt, *Taricha granulosa*, appears to have coevolved with resistance in its predator, the common garter snake, *Thamnophis sirtalis*, yet the mechanism by which individual selection can operate has been unclear in this and other lethal prey-predator systems. The authors show that individual snakes assess their own resistance relative to newt toxicity and reject prey too toxic to consume. Rejected newts all survived attacks and attempted ingestion by snakes that sometimes lasted over 50 min. Behavioral moderation of toxin exposure by snakes provides the association between individual resistance and fitness necessary for coevolution of lethal toxins and resistance to occur.

CLEARCUTS AND SALAMANDER POPULATIONS

A. N. Ash et al. [2003, J. Herpetology 37(2):445-452], during summer 1997, collected 115 *Plethodon metcalfi* on a 10-year-old clearcut (50) and in a nearby forest (65) in the vicinity of Highlands, North Carolina. Sex, reproductive status, snout-vent length (SVL), mass and age were used to assess the effects of clearcutting. Relative to the forest population, the clearcut population had a smaller proportion of juveniles and proportionately fewer adult males in reproductive condition. Mature female salamanders had greater SVLs than mature males, but there was no difference in average SVL between sites. Masses of mature salamanders did not differ by sex, but salamanders on the clearcut were more massive than their counterparts in forest. Ages of mature salamanders did not differ by sex or site. These results suggest that age distributions, masses, and reproductive efforts of *P. metcalfi* populations on clearcuts in the southern Blue Ridge Mountains are altered by clearcutting. Future research concerning effects of forest management on salamander populations must consider the possibility that, although salamanders may be entering managed areas shortly after cutting, these populations may be atypical in several important ways.

TADPOLE TAILS AS LURES

J. van Buskirk et al. [2003, J. Herpetology 37(2):420-424] note that tadpoles of many species develop enlarged tail fins in the presence of insect predators, but the function of this response is not known. Because large tails do not improve swimming performance, the authors tested the hypothesis that the tail attracts predator strikes away from the more vulnerable head and body region. First they confirmed the assumption that attacks to the tail are less dangerous: Living tadpoles escaped from dragonfly larvae only 10% of the time when the strike landed on the head and body but 29.4% of the time when struck on the tail. Then they constructed model tadpoles having four tail shapes: normal, predator-induced, and 50% shallower and 50% deeper than normal. The models were presented to dragonflies and the location at which the insect's labium struck the model was noted. Models having the predator-induced tail sustained 16% fewer strikes to the head and body than did models with the noninduced tail, lending credibility to the hypothesis that the tail acts as a lure. Models with an unnaturally large tail were attacked more often on the body than was the predator-induced model, which may create stabilizing selection on tail shape.

Advertisements

The Reptile Rescuers Open, October 10, 2003. Four Winds Golf Club, 23110 W. Rte. 176, Mundelein, IL. Entry Fee = \$150 per person. Event Format = 4 Person Scramble. For more information please contact Mark Sandfox at (847) 526-0016 or visit our website at www.ReptileRescuers.com. This golf outing is sponsored by Reptile Rescuers. All of Reptile Rescuers' services (Rescue, Adoption, Shelter, Educational Programs, Website, etc.) are completely free; thus we rely heavily on fund raisers and the generous donations of individuals and corporations. Thank you for your support.

For sale: rats and mice—pinkies, fuzzies and adults. Quantity discounts. Please send a SASE for pricelist or call Bill Brant, *THE GOURMET RODENT*, 6115 SW 137th Avenue, Archer FL 32618, (352) 495-9024, E-mail: GrmtRodent@aol.com.

For sale: murine-pathogen-free rats and mice available in all sizes, live or frozen: pinkies, fuzzies, crawlers, small, medium and large. Frozen crawler mice in lots of 2000, \$.17 each. Also available, full grown hairless mice. FOB shipping point. Master Card accepted. Call (518) 537-2000 between 8:00 A.M. and 5:00 P.M. or write SAS Corporation, 273 Hover Avenue, Germantown NY 12526 for prices and additional information.

For sale: from **The Mouse Factory**, producing superior quality, frozen feeder mice and rats. We feed our colony a nutritionally balanced diet of rodent chow, formulated especially for us, and four types of natural whole grains and seeds. Mice starting from: pinks, \$.17 each; fuzzies, \$.24 each; hoppers, \$.30 each; weanling, \$.42; adult, \$.48. Rats: starting with pinks at \$.45 each, to XL at \$1.80 each. Discount prices available. We accept Visa, MC, Discover or money orders. P.O. Box 85, Alpine TX 79831. Call us **toll-free** at (800) 720-0076 or visit our website: <http://www.themousefactory.com>.

For sale: from Bayou Rodents, excellent quality feeder mice and rats. Every size available. Pinks starting at \$20/100. Orders are shipped by overnight service Monday thru Thursday. We accept Visa, MasterCard and Discover. For more info, contact Rhonda or Peggy, (800) 722-6102.

For sale: **high quality frozen feeders**. Over a decade of production and supply. Seven sizes of mice available: small newborn pinks up to jumbo adults. Prices start at \$25 per 100. Feeders are separate in the resealable bag, not frozen together. Low shipping rates. Free price list. Kelly Haller, 4236 SE 25th Street, Topeka KS 66605, (913) 234-3358 evenings and weekends.

For sale: **Pillstrom Snake Tongs** are available from the manufacturer and are shipped worldwide. Lengths/prices: 26"/\$63, 36"/\$64, 40"/\$65, 46"/\$66, 50"/\$67. Shipping and handling costs in the U.S.: \$8 for the first tong, \$1 for each additional. Pillstrom Tongs, 4617 Free Ferry Road, Fort Smith AR 72903-2363, (479) 452-3001 phone, (479) 452-3671 fax. E-mail: pillstromt@aol.com. Website <members.aol.com/mpillstrom>.

For sale: glass terrarium, 20-gallon, 24"l × 12"w × 17.5"d, screen top, wrought iron stand included, \$25. Char, eves. (708) 452-4116, or days (847) 768-3429. E-mail: charlynlou@earthlink.net.

For sale: herp publications. *Eyelids of Morning* by Alistair Graham and Peter Beard, 1990 (1973), 260 large pages, over 200 color and b&w photos, interesting story of 3 years of research on Nile crocs in Kenya's Lake Rudolf and their relationship with the Turkana people, startling, often macabre, photos, softbound, \$24; *The World of Amphibians & Reptiles* by Robert Mertens, 1960, 207 pp., 140 color and b&w photos, DJ somewhat torn, hardbound, \$47; *Reptiles and Amphibians* (part of Wild, Wild World of Animals series by Time Life Television), 1977, 128 pp., many excellent color photos, hardbound, \$14; A potpourri of magazine articles (from *Outdoor Life*, *True*, *Argosy*) and newspaper clippings (mostly Los Angeles area) of the 40s, 50s and 60s dealing with reptiles. This 4-inch stack probably contains 50 or so items about such things as escaped large pythons (Pete from the Ft. Worth Zoo in 1954) and cobras (the Ozarks), snake hunts by Ross Allen, Marlin Perkins, and Ray Folsom, alleged harrowing adventures with reptiles and articles by writers like Dan Mannix and Carl Kauffeld. Of historical interest . . . and some chuckles, \$20. All books are in excellent condition. Prices include postage. William R. Turner, 7395 S. Downing Circle West, Littleton, CO 80122, (303) 795-5128. E-mail: SMUparent@aol.com.

For sale: newborn babies of the following should be available from mid August 2003—Egyptian spiny-tailed lizard, *Uromastix a. aegyptius*, very limited number, \$125 each; yellow Niger spiny-tailed lizard, *U. a. geyri*, bred from outrageous lemon yellow males, \$90 each; fluorescent orange Niger spiny-tailed lizard, *U. a. geyri*, have you seen a lizard that has been dipped in mercurochrome before? \$110 each; golden Mali spiny-tailed lizards, *Uromastix dispar maliensis*, the nicest of all, \$80 each. These all have been produced in captivity, NOT imports. Claire or Noel, (760) 329-1665. E-mail: Haciendaanura@att.net.

For sale: Jungle carpet pythons, captive bred hatchlings from beautiful black and yellow adults, \$75. Ralph, (847) 904-7229.

For sale: two 18" creamsicle cornsnakes, \$75 each; one 18" motley cornsnake, \$75; one 3' sunglow motley cornsnake, \$100; two 15" gray-banded/mountain kingsnake hybrids, \$60 each; four 18" blue beauty ratsnakes, \$50 each; two breeding pairs of blue beauty ratsnakes, ~6', \$300 each; one male and two female 3' Chinese beauty ratsnakes, \$250/ trio; three 5–6' cave-dwelling ratsnakes (*ridleyi*), \$1800; one 9' Taiwan beauty ratsnake, docile, \$250; one 28" green tree python, \$350. All are captive-bred. Will consider "best offer" on most. Will deliver in greater Chicago area. Bill, (708) 799-6697.

For sale: All of the following c.b. '03 garter snakes are now available. All are healthy, voluntarily feeding on feeder fish and mite free. **Easterns:** erythristic × melanistic × melanistic × erythristic, erythristic \$100, melanistic \$35; Super flames (erythristic/Blais flames × Erythristic/Blais flames) ?; Blais speckled flames \$125, Blais flames \$100, melanistic \$35 and Florida \$25 each / 2 for \$40. Plains: Red/anerythristic × red/anerythristic ?, Red/hypo × albino × red/hypo × albino ?; snows (Iowa and Nebraska strains), \$275; albinos from red × albino × red × albino, \$150; Iowa albino, \$100; Nebraska albino, \$100; anerythristic, \$50; quad het (Iowa snow × Nebraska snow), has genes for 4 traits, \$85; Nebraska albino × red albino, \$40; Christmas albino, \$200; super Christmas albino (Christmas albino × red albino) *special, \$300, females only/trios, \$600 (buy 2, get 1 free); possible hets, \$35; normals, \$25 each/2 for \$40. **Red Sideds:** albinos (limited number available), \$350, possible het albinos (66%), \$50, anerythristic, \$100, het anerythristic, \$50, possible het anerythristic (66%), \$35, normals, \$25 each/2 for \$40. **Wandering:** albino, \$150, hets, \$75, normals, \$25 ea/2 for \$40. **Florida "true" blue-striped (similis)** \$40–100. **Santa Cruz** (orange and yellow morphs), \$60; **California red-sided**, \$125. ? = Price is to be determined at birth. Inquire about quantity discounts. E-mail: SFelzersgarters@nc.rr.com or call Scott, (919) 365-6120 EST. Web address: <http://www.thamnophis.com/features/ScottFelzer/>

For sale: African house snake, *Lamprophis fuliginosus*, male, 18 months, red phase, \$35; African house snake, *L. fuliginosus*, female, 18 months, green phase, \$40. Or \$70 for the pair. E-mail Jim Hoffman at james-hoffman@attbi.com or call (847) 534-4980. Chicago area.

Herp Tours: Why pay more? Travel with the International Fauna Society, a 501 (c)3 not-for-profit organization, and experience the Costa Rican rainforest! Stay at the beautiful Esquinas Rainforest Lodge in the untouched herpetological paradise that is Piedras Blancas National Park. Meet new friends, relax in the naturally-filtered swimming pool or in the lush, fauna-filled tropical garden. May 3–10, 2003, \$1195 per person excluding airfare. Discounts for IFS and Chicago Herp Society members. For details, visit The International Fauna Society website at www.faunasociety.org or E-mail: joca@faunasociety.org.

Herp tours: Adventure trips to **Madagascar**! Journey somewhere truly unique to seek and photograph nature on the world's least-studied mini-continent. For maximum herp fun and discovery, join Bill Love as we go where few people will ever venture in their lives. Let his experience assure a comfortable tour finding the most colorful and bizarre species on the planet! Get all the details at Blue Chameleon Ventures' comprehensive new website: <<http://www.bluechameleon.org>>, E-mail: bill@bluechameleon.org, or call (239) 728-2390.

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Pet Sitting: In-home care for all your pets' needs. Specializing in reptiles, amphibians, birds, fish, dogs, cats. . . . Very passionate in herpetology, experienced vet technician at an exotic animal hospital, aquarium technician for over 10 years. Great references available. Call Lisa Collins to book your special care requests, (847) 644-3681. [Northshore based]

Wanted: I'm looking for my soulmate. I want to settle down to a family before it is too late. But I have this problem. . . . When we get into hobbies and interests: old popular records, jazz and show tunes, and antique electronics are fine, but when I mention turtles, "What, are you crazy?" So maybe this is a better place to look. Please don't try to separate me from my turtles—at least not most of them. If interested, please drop a line to Ellis Jones, 1000 Dell, Northbrook IL 60062, telling a bit about yourself and giving a phone number.

Wanted: big-headed turtles; mata mata turtles; Mexican giant mud turtles (*Staurotypus triporcatus*); exceptionally large common snappers (45 lbs. & up); large alligator snappers (over 90 lbs.); spectacled caiman from Trinidad, Tobago and Surinam; dwarf caiman; smooth-fronted caiman; albino turtles (except red-eared sliders). Walt Loose, (610) 926-6028, 9:00 A.M. – 1:00 P.M. or after 11:30 P.M. Eastern Time.



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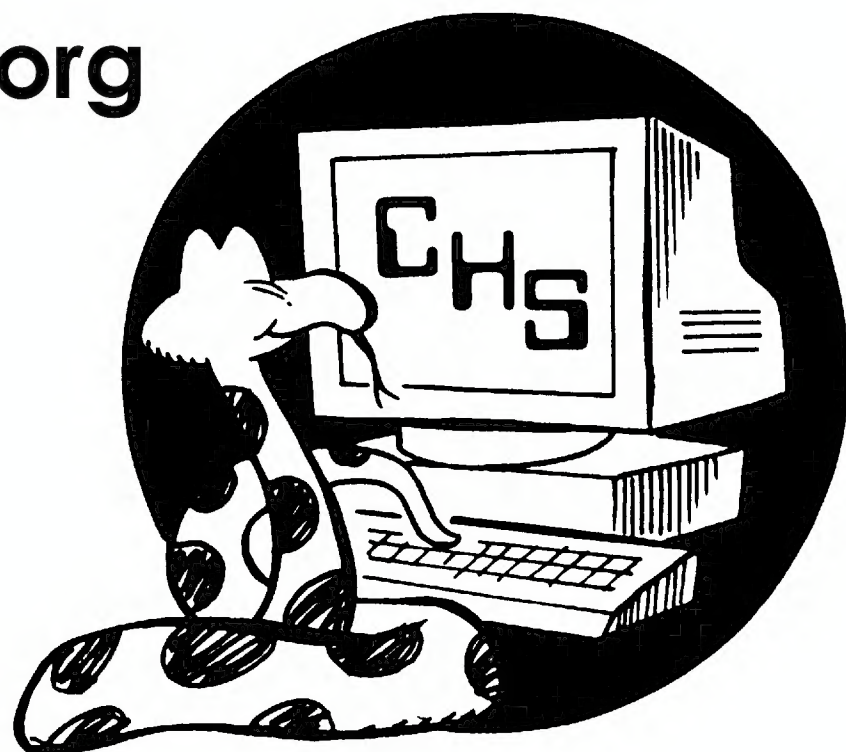
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News and Announcements

PROPOSED ANIMAL BAN ORDINANCE FOR THE CITY OF CHICAGO

Chicago Alderman Edward Burke (14th Ward), reacting to last month's unfortunate monkeypox episode, has proposed an ordinance that would prohibit private citizens from keeping a wide variety of animals. Among the animals that would be banned are a large number of harmless reptile species that are routinely kept by many CHS members. The proposed law is far too lengthy to print here. The full text can be found on the CHS web site (www.chicagoherp.org). Unless something changes, this ordinance will be reviewed in the near future by the Chicago City Council's Police and Fire Committee. You can find the names and addresses of the aldermen on this committee, including Alderman Burke, on the CHS web site.

Banned reptile species would include all iguanas, tegus and monitor lizards. Also, all species of boas and pythons. Even gartersnakes would be prohibited. Presumably the CHS would no longer be able to hold ReptileFest within the city limits of Chicago. And we could no longer hold our many educational shows at the city's museums and libraries.

HERP OF THE MONTH

Each monthly meeting will showcase a different herp. CHS members are urged to bring one specimen of the "Herp of the Month" to be judged against the entries from other CHS members. Prizes will be awarded to the top three winners as follows: 1st place—6 raffle tickets at next meeting; 2nd place—4 raffle tickets at next meeting; 3rd place—2 raffle tickets at next meeting. Here are the categories for the coming months:

Month	Description of Contestants
August 2003	Illinois herps
September 2003	Rescued and adopted herps
October 2003	Bearded dragons
November 2003	Tortoises
December 2003	Python species that do not exceed 8' in length
January 2004	Herps from South America
February 2004	Herps from Africa
March 2004	Amphibians of the world
April 2004	Beginner herps
May 2004	Herps from Madagascar

INDIANAPOLIS CHS ZOO TRIP

Join us on Saturday, September 13, for an adventure-filled day trip to the Indianapolis Zoo. Visit the Deserts Dome, where reptiles roam free in an artificial desert. See a special exhibit: "Drop Dead Gorgeous Snakes" (Learn more at www.indyzoo.com). Learn first-hand from zoo staff about their highly successful iguana breeding programs for Grand Cayman blue, Ricord's, Cuban ground and rhinoceros iguanas. This Zoo has also committed its financial and technical support for the endangered Jamaican iguana.

The CHS has arranged luxurious, washroom-equipped bus transportation, with movies-in-transit. We'll be leaving from the Peggy Notebaert Nature Museum at 7 A.M., returning before 10 P.M. So reserve the date. Seats are limited and will be available on a first-come-first-serve basis. We expect demand to exceed the available seats, so don't delay. Contact Bob Herman for details at (773) 667-4095 or by E-mail at bobherman@ameritech.net. Round-trip transportation with zoo admission is just \$30 per person! Children are welcome.

REPTILE SHOW and SALE	
Saturday Nov. 8, 2003 & Apr. 24, 2004 1011 Nichols Rd, Monona WI. 10 am to 4 pm Captive-Bred Only. Vendor Space Available INFO: wireptileshows@hotmail.com (608) 238-2891 Admission \$4. Under 12, \$2	

UPCOMING MEETINGS

The next meeting of the Chicago Herpetological Society will be held at 7:30 P.M., Wednesday, August 27, at the Peggy Notebaert Nature Museum, Cannon Drive and Fullerton Parkway, in Chicago. **Dr. Susan Mineka**, Professor of Psychology, and Adjunct Professor of Psychiatry and Behavioral Sciences, at Northwestern University in Evanston, Illinois, will speak on the topic, “Why Are So Many Human and Nonhuman Primates Afraid of Snakes?” Susan and her colleagues have designed and conducted a series of increasingly clever experiments with monkeys in an effort to determine to what extent these animals' fear of snakes is innate and to what extent learned. In addition to her research interests, Dr. Mineka serves on the boards of several professional associations and on the editorial boards of several psychology journals. She is also Co-director of the Family Institute's Anxiety and Panic Treatment Program at Northwestern University.

At the September 24 meeting **Jessi Krebs**, supervisor of reptiles and amphibians at the Henry Doorly Zoo in Omaha, Nebraska, will present a program entitled “Research, Conservation and Husbandry of Hellbenders and Giant Salamanders.” Jessi is a founding member of the Cryptobranchid Interest Group, which is supported by the American Zoo and Aquarium Association. He is also involved with the Puerto Rican crested toad recovery project and several other herp-related conservation and research projects.

The regular monthly meetings of the Chicago Herpetological Society are held at Chicago's newest museum—the **Peggy Notebaert Nature Museum**. This beautiful new building is at Fullerton Parkway and Cannon Drive, directly across Fullerton from the Lincoln Park Zoo. Meetings are held the last Wednesday of each month, from 7:30 P.M. through 9:30 P.M. Parking is free on Cannon Drive. A plethora of CTA buses stop nearby.

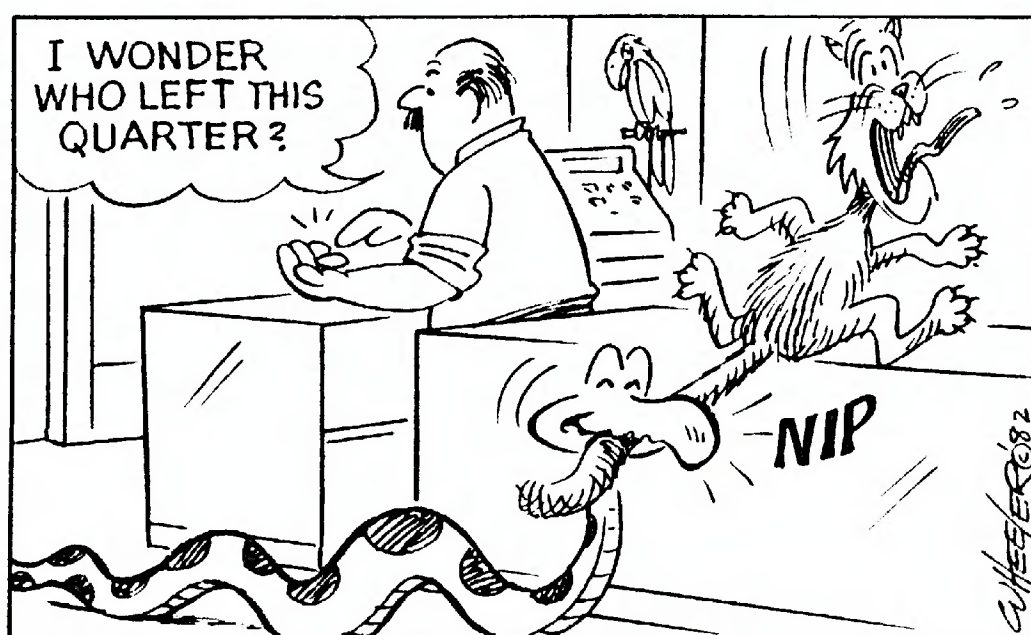
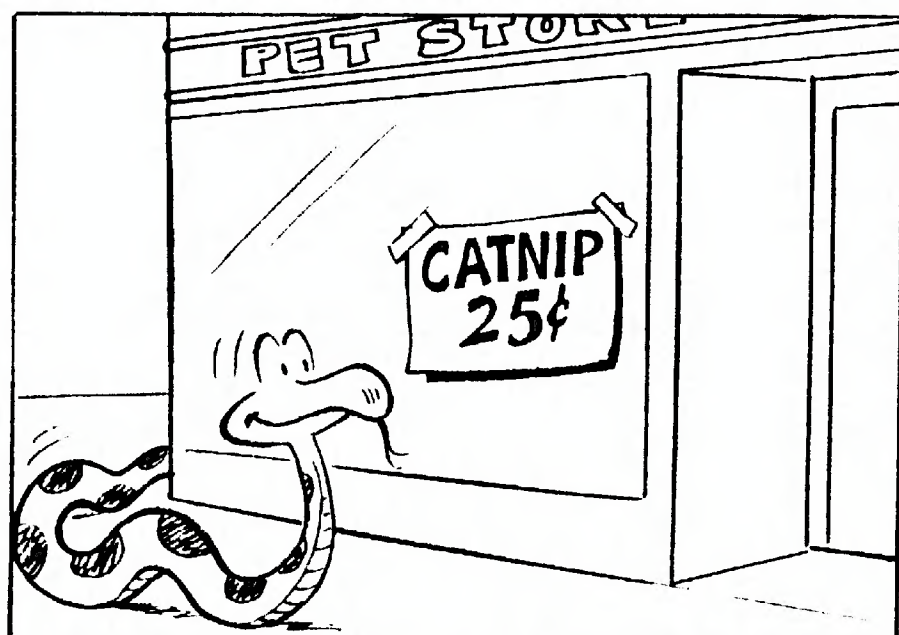
Board of Directors Meeting

Are you interested in how the decisions are made that determine how the Chicago Herpetological Society runs? And would you like to have input into those decisions? If so, mark your calendar for the September 12 board meeting, to be held at the North Park Village Administration Building, 5801 North Pulaski Road, Chicago. To get there take the Edens Expressway, I-94, and exit at Peterson eastbound. Go a mile east to Pulaski, turn right and go south to the first traffic light. Turn left at the light into the North Park Village complex. At the entrance is a stop sign and a guardhouse. When you come to a second stop sign, the administration building is the large building ahead and to your left. There is a free parking lot behind the building.

The Chicago Turtle Club

The monthly meetings of the Chicago Turtle Club are informal; questions, children and animals are welcome. Meetings normally take place at the North Park Village Nature Center, 5801 N. Pulaski, in Chicago. Parking is free. For more info call Lisa Koester, (773) 508-0034, or visit the CTC website: <http://www.geocities.com/~chicagoturtle>.

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